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# EDITORIAL—SOME HIGHLIGHTS

## I. General Economic Scene

### State

*Fifth Plan:* In light of the approval by the National Development Council of the Approach to the Fifth Plan towards the end of January, the State Planning Commission finalisation *of the State's* Fifth Plan was facilitated. First the endorsement of the major objective of the approach paper which is the removal of poverty or as the State's perspective plan frame puts it in more modest and realistic language, a *selective* attack against the worst forms of *poverty,* is translated into an employment generating, labour intensive, rural manpower mobilising strategy. The strategy also includes changes in the production pattern in the direction of increased production of essential goods and a mass distribution network. The Fifth Plan sectoral projects that are under elaboration translate this strategy into programmes in the agricultural, forestry, fishery, dairy farming, housing, transportation, small and medium industry and rural development areas. The structural changes that will be needed to bring together small farmers (whose members will increase by about 30 per cent consequent on the ceiling legislation) for joint cultivation, the non-fiscal instruments and programmes to restrain consumption and ensure at the same time capacity utilisation of manufacturing units whose products will have to be exported, and the distribution network for essential goods have still to be worked out and call for political decisions at the State and Union Government levels. In light of the Fifth Plan outlays in the *approach* paper based on an implied increment of capital output ratio of 3.43, the State Fifth Plan is being based on an incremental capital output ratio derived from the Fourth Plan of 2.9, as analysed in the last issue of the Bulletin (page 83), with a total outlay of Rs. 3,900 crores and not Rs. 3,100 crores as reported there and as set forth in the Perspective Plan frame (see Vol. II No. 10 page 1 and No. 12 page 15). The breakdown of this total outlay is still under discussion, with Rs. 1,300 crores as the State sector, Rs. 1,250 crores under the Central sector and Rs. 1,450 crores under the private and co-operative sector.

*Perspective Plan :* The Perspective Plan for urban development has been finalised in the report of that Task Force. The plan foresees an increase in class I towns—Madras, Madurai, Coimbatore, Salem and Tiruchi and an increase of the urban population from 12.45 millions in the 1971 census to near 17 millions by 1984. The urban land policy recommended cover: (a) increasing the amount of urban land for development at appropriate locations and at the right time: (b) ensuring that the pattern of land use development is planned and orderly: (c) achieving a greater measure of distributional equity; and (d) obtaining for public use an adequate share in the unearned values of private lands. For this purpose the plan proposes a policy and machinery. On the policy side it recommends socialisation of land, requiring amendments to existing acquisi-

tion laws so that the value of land is related to the use; payment of fixed amounts instead of compensation at market prices; treating all lands within towns including agricultural lands as being for urban use for taxation purposes; and taxing the actual cost of private land development. It recommends that the ceiling on urban property should be based on extent of the area of the property rather than its value in the interest of distributional equity and avoiding problems of evaluation at a time of fast rising prices. On machinery it recommends setting up a State, Town and Country Planning Board, and Planning authorities at the regional and local levels which will undertake preparation and implementation of Regional Plans, Master Plans, Metropolitan Plans, Detailed Development Plans and New Town Development Plans. The Madras Metropolitan Plan (see last issue of the Bulletin page 91) is commended for immediate implementation and similar plans are recommended for the other 4 class I cities,—Madurai, Coimbatore, Salem and Tiruchi. Lands acquired for urban development including the bulk land acquisition in peripheral areas of the towns and cities and lands acquired as a result of the ceiling recommended should be administered by an Urban Land Bank which will make the lands available to development agencies. Municipalities should develop plots for housing rapidly and attract private sector investment which will have to be responsible for a large part of the large scale housing programme to be undertaken. The plan's financial recommendations are based on the above policy and programmes. Against the Fourth Plan expenditure of Rs. 2.2 crores for town planning and urban development, the Perspective Plan outlay proposed is Rs. 30 crores. Rs. 50.6 crores are proposed in the Central sector for metropolitan development plans and growth centres. Rs. 30 crores have been provided under HUDCO, LIC and Banks for implementation of new and satellite town schemes. The total perspective plan outlay for urban development is Rs. 503 crores. Rs. 215 crores is for urban housing. Rs. 170 crores is computed as the contribution of the private sector and institutional finance from LIC, banks etc. Rs. 8 crores in the Central sector is provided for establishing factories for the production of building and construction materials in the State.

*Regional Plan for Tiruchi-Thanjavur:* The second of the eight Regional Plans (see Vol. II No. 12 page 52) covering the Tiruchi-Thanjavur region has been issued in draft form and was the subject of discussion at a seminar in late January in Tiruchi. The Tiruchi-Thanjavur region consists of the entire Thanjavur District except Aranthangi Taluk, most parts of the Tiruchi district—i.e. the taluks of Tiruchirapalli, Lalgudi, Musiri, Manapparai, Thuraiyur, Kulithalai and Kalathur and also Chidambaram taluk of the South Arcot district, comprising the entire Cauvery command area. The Plan envisages economic and spatial development of different social and economic groups of urban and rural areas, which are closely related to each other. The economy of the region is 80 per cent agricultural with a 3.8 per cent forest area, and an important fishing industry. It is industrially retarded with 68 large and medium industries and 2,700 small scale units. The main lines of development of the region proposed is consolidation of the development which have already taken place, launching intensive programmes of rural works including building infrastructure facilities which are labour intensive, so as to utilise not only the enormous unemployed rural labour force but also to provide for further growth and diffusion to the economy. The industrialisation of the region

is to be through medium and small scale industries locating them in small towns and selected urban centres which will also arrest the migration of the rural population to large towns and cities. As regards agriculture, while making efforts to sustain the intensive developments that have already taken place, diversification of the cropping pattern of the region is proposed to increase both the productivity and income of the farmers. This is supported by schemes of major and minor irrigation, energisation of pumpsets, integrated and rational use of surface and ground water, coupled with better credit and marketing facilities as well as a better net work of rural roads towards marketing and urban centres. In the industrial field there are also proposals for setting up of marine chemicals, salt based industries, agro-based industries, and processing industries. Thus the strategy for the development, envisaged for the region lays stress on (a) continued growth of agriculture on modern lines in order to establish a strong and progressive base for food production as well as for producing the raw materials for agro-based industries (b) dispersal of small and medium industries in the selected growth centres and (c) development of small towns which are mostly the block headquarters into viable market and trade centres. The seminar review of the draft plan broadly endorsed the plan and urged that a large scale fertiliser industry be developed in this industrially retarded region to meet the large and extensive fertilizer demands of the farmers who led the breakthrough in rice production for the Country and who still occupy a rather special place among IADP districts. A second medium industry suited to local conditions that should be developed is a marine chemical industry located in the Tiruchi sub-region. The other conclusions of the seminar are part of the perspective agricultural plan reported in Vol. II No. 12 pages 1-3 and the District Plan referred to in the next section of this issue with special reference in this region, to an integrated programme of multiple cropping, mixed farming, use of HYV and new varieties of crops together with an intensified programme of animal husbandry and dairy farming in areas of advanced agricultural development. One of the problems identified in the region is the need for training programmes to develop entrepreneurship for the development of agro-based industries and agro-related industries both on and off the farm—particularly in areas which possess high potential. What now remains to be done is to cost the proposed regional programme, to ensure its integration in both programme and financial terms with the four development district plans covering this region and to put in place a single and unified planning and monitoring machinery without the proliferation and duplication that will follow if each separate isolated plan machinery recommended is adopted.

*District Plans:* By the end of January, 6 district plans out of 23 were finalised—those for North Tiruchirapalli, South Tiruchirapalli, East Thanjavur, West Thanjavur, East Coimbatore and West Coimbatore. The perspective plan for the period 1972-84 for the North Tiruchirapalli development district provides for an outlay of Rs. 306.09 crores with heavy emphasis on agriculture (Rs. 83 crores), animal husbandry (Rs. 22 crores) and soil conservation (Rs. 2.4 crores). 16,225 additional hectares are to be brought under irrigation at a cost of Rs. 17.18 crores. In the transport sector 737 kms of additional panchayat and panchayat union roads at a cost of Rs. 20 crores are to be constructed. A modest industries programme for Rs. 17.55 crores is proposed. The perspective plan for the South Tiruchirapalli development district proposes an

outlay of Rs. 287.30 crores in which again there is major emphasis on agriculture (Rs. 80.16 crores), animal husbandry (Rs. 13.6 crores) and irrigation (Rs. 26 crores). A variety of medium and small industries are proposed for Rs. 50 crores. Public health and sanitation also are given high priority. The perspective plan for the East Thanjavur development district proposes an outlay of Rs. 235.35 crores, with Rs. 159.90 crores in the public sector and Rs. 75.45 crores in the private and cooperative sector. The major programmes are irrigation (Rs. 79.3 crores), and fisheries (Rs. 46.19 crores) making agriculture Rs. 132.3 crores. Industries have only Rs. 4.6 crores allocated to them. Social services are well planned and accounts for Rs. 71.8 crores. The perspective plan for the West Thanjavur development district envisages an outlay of Rs. 220.94 crores. 48 per cent of the outlay is for programmes in agriculture, animal husbandry, education, health, nutrition and family planning. The outlays are divided into the public sector (Rs. 155.84 crores) and the private sector, local bodies, cooperatives and the housing board. The perspective plan for East Coimbatore development district proposes an outlay of Rs. 168.67 crores. Agriculture has a small programme of Rs. 19.25 crores while small and medium industries have a major share. There is a big fisheries programme proposed, with the health and nutrition programme still to be worked out. The perspective plan for the West Coimbatore development district provides for an outlay of Rs. 220.55 crores. The major emphasis in the district plan is on industries with a proposed investment of Rs. 60.68 crores. The industries include a scooter manufacturing plant (Rs. 700 lakhs), cooperative sugar mills (Rs. 750 lakhs), hosiery (Rs. 247 lakhs) cylinders and regulators (Rs. 225 lakhs), electrical spanners (Rs. 214 lakhs) and Foundry (Rs. 175 lakhs). Power has an equivalent outlay at Rs. 61.68 crores. The agricultural programme has an outlay of Rs. 18.57 crores followed by well conceived education, housing and health projects.

*Sixth Finance Commission:* The discussions of the Sixth Finance Commission in the State during the first half of January helped in clarifying the basic issues of Centre-State financial relations with reference to the Fifth Plan. The Commission has wide and adequate terms of reference and for the first time has a combined Finance and Planning Commission membership (see Vol. II No. 8 pages 5 and 6). The basic issue raised by the State in its discussion with the Finance Commission is the setting up of the Centre-State financial relationship on a sound federal basis, providing relative financial autonomy to both the Federal and State units, and providing the latter with adequate, certain and elastic sources of revenue in line with its developmental responsibilities for agriculture, small and medium industry, rural development, health, education, etc. Here the past and current trend under which the State's dependence on Central grants has increased from 12 to 18 per cent and from 30 to 41 per cent if the share of Central taxes is added must be reversed. For establishing a safe and sound relationship, the shareable pool of taxes should be enlarged, the role of grants-in-aid reduced to that of meeting emergencies, and the Union Planning Commission's resources transfers based on integrated and unified decisions of criteria and principle, including performance audit, all of which should be established by the Finance Commission. An increase in the shareable pool and improvement in the basis of sharing involves (a) weighting on the basis of index of collections, the 75 share of the income tax to the States (this State has

been losing in the excess of collections over the share received, from Rs. 7 crores to Rs. 17 crores in the sixties), (b) including the corporation tax and surcharges in the shareable pool to the extent of 50 per cent, as this tax is in effect a tax on income (the former would require a long needed constitutional amendment), (c) increasing the State's share of all excises including special excises, with some weight for the range of collections expressed in the urbanisation index, (d) assigning to the State agricultural wealth tax and all levies under Article 269 of the Constitution including 10 per cent of railway passenger earnings and the tax on railway freight. A second issue in Centre-State financial relations relates to emoluments of State Government employees who should be paid the same as Union Government employees on the recognised principle that those doing the same kind of work in any place should be paid the same wages and the Union Government with its larger resources taking responsibility for financing the periodic rises in the emoluments that follow from the recommendations of the Pay Commission. This would also be a means of developing a coordinated wages-price and profit policy. The third issue is the growing burden of State indebtedness which has increased from Rs. 4.4 crores in 1952 to Rs. 27.3 crores in 1961, on to Rs. 67.7 crores in 1968 and Rs. 99.63 crores in 1973. Debt servicing obligations of this State amount to Rs. 269 crores for the Fifth Plan period. At the start of the Fifth Plan, the State debt will be Rs. 400 crores and during that period it cannot really repay Rs. 220 crores on principal account (the remaining Rs. 69.37 crores being on interest account). This is the basic reason for rescheduling the debt owing to the Union Government (as argued in Vol. I No. 7 pages 1 and 2, No. 9 pages 2 and 3, Vol II No. 3 pages 5 and 6, No. 4 pages 3 and 4, No. 5 page 2, No. 6 page 7, No. 7 page 2 No. 10 page 5) and not the largeness or smallness of the so called non-Plan capital gap. Each country of course invents some part of its financial terminology. For us non-Plan gap is the result of subtracting the total non plan receipts on capital account which include unfunded debt, receipts from sinking fund, depreciation funds and deposits from the total non plan expenditures which include non plan capital expenditure, loans and advances, net outflows on deposit account and repayments to the Union Government. This is no basis for rescheduling as it provides an incentive to financial dodges and imprudence. Rather rescheduling should be based on dividing the debts into (a) infrastructural loans which should be turned into grants, (b) welfare and natural calamities loans which should be converted into grants, with soft term loans for any amount that the State may borrow for this purpose to meet its share of 25 per cent and (c) productive loans which should be normally reimbursed. In addition to these issues the State has made a good case for resource transfers to the State providing incentives rather than disincentives to financial prudence, and to maximum effort at mobilisation of resources particularly through taxes. This State's per capita tax revenue in 1972-73 is Rs. 51 as against the Country's average of Rs. 34 and is the highest in terms of the State income at 4.99 per cent, with Maharashtra being second at 4.68 per cent, while Uttar Pradesh is at 3.19 per cent. The Finance Commission in terms of reference was asked to examine the feasibility of setting up a National Fund for calamities. For the last three years, expenses on this account have been running at Rs. 150 crores per annum. The direct damage is an annual Rs. 126 crores over the last 8 years. In 1972 it was Rs. 627 crores. But setting up a Fund will merely lock up resources and not permit a long term plan

to deal with floods, cyclones and droughts, which should be provided for in the Five Year Plans. And so the issues for decision by the Finance Commission are clear. It is to decentralise financial resources to the States so that they can execute the development programmes on the basis of strategies and policies established at the all India level. The major instrumentality is to devolve tax receipts to the maximum and reschedule the debt burden. On this, all States are agreed. The Mysore Government expressed it when emphasising the need for the Commission to interpret its power widely and give all States a comparable surplus after repayment of loans. It stated that plan and non-plan assistance should be such that fresh borrowings and resource mobilisation should be used for fresh development. Mysore, Maharashtra and Gujarat have asked for an increase in the income tax share from 75 to 90 for all States. The major financing decisions for the Fifth Plan are clear. On how they are made will depend the reality of plan execution.

*Flood Relief*: Following the first survey of the December cyclone and floods and relief action reported in the last issue of the Bulletin (page 85), the State Government presented in early January to the Union study team a programme, mainly short term, for rehabilitation amouting to Rs. 25 crores. The first part is to continue the immediate and speedy repair of roads and tanks. The second part is to restore the damaged irrigation and communications system to what it was before the floods, which involves clearing the 4,000 acres which had become sand cast, building and restoring houses for the 1.7 lakh householders who had their homes washed away and bringing back irrigation tanks and roads to normal conditions. These two programmes have been costed by districts: South Arcot Rs. 8.84 crores, Thanjavur Rs. 5.55 crores, Coimbatore Rs. 3.26 crores, Salem, Rs. 3 crores, North Arcot Rs. 87 lakhs, Chingleput Rs. 87 lakhs, Dharmapuri Rs. 49 lakhs, Tiruchirapalli Rs. 71 lakhs, Nilgiris Rs. 20.26 lakhs and Madras Rs. 79.2 lakhs—making a State total of Rs. 25 crores. In addition there is a third long term programme which is to improve the quality of the tanks and roads which are being restored and reconstructed so that future floods and cyclones can be better resisted. This would involve strengthening the bunds of irrigation tanks and improving the wentways. The rebuilding of the Pennaiyar and Tirukoilur reservoirs which were completely washed away and the repair of the damaged Godilam anicut, for instance, should be undertaken on this quality basis. So too in the improvement of bridges and strengthening of roads, the long term measures should be built in. For this third anti-cyclone and flood programme, an additional estimate is under preparation and that should form a part or supplement of the State's Fifth Plan and the district plans for that period. This also is part of a long term massive flood control programme that the Union Government is planning for the next 8 years. As noted earlier, the annual damage from floods—due to the Himalayan rivers Ganga and Brahmaputra in the North involving Assam, Bihar, Uttar Pradesh and West Bengal and to cyclones in the peninsular part—Orissa, Andhra Pradesh and now Tamil Nadu—amounts to Rs. 150 crores. The total average area effected is 6.7 million hectares every year with a population of 19 million. Of the total damage, the major part (70 per cent) is loss of crops amounting to 1 per cent of the Country's food production, that is 1 million tonnes of food grains. Between 1954-72 Rs. 255 crores have been invested in flood control measures including Rs. 120 crores on embankments. But this is around an annual Rs. 14.2 crores against an annual agricultural damage of Rs. 120 crores.

Hence the proposed 8 year plan to protect about 50 per cent of the flood prone areas at a cost of Rs. 600 crores is urgent and sound. It will cover a total of ten million hectares—the most valuable cultivated land. In addition flood forecasting and warning systems are to be set up. In early January, the 10 cm cyclone warning radar was set up at the Madras Port building. After the Vishakapatnam radar set up in 1970, this second radar will be followed by six more installations at Calcutta, Paradeep, Machilipatnam, Karaikal, Bombay and Goa to complete the weather forecasting and cyclone warning system. With the help of the cyclone warning and research centre being set up in Madras, it will detect cyclones up to 400 kms out at sea and locate the eye of the storm. The installation was partially in use during the December cyclone and a precise hour by hour position of the storm was determined. The system which will be in full operation for the penninsula by 1975 will help to give effective anti-cyclone information. Work on a Rs. 18 lakh six mile embankment from Bhavani to Jambai was started at the end of December, with a decision to construct the opposite embankment from Bhavani to Gobichettipalayam at a cost of Rs. 47 lakhs on a phased basis. In addition the government has decided to finance completely the desilting and reclamation of the entire 10,000 acres which has been sand cast at a cost of Rs. 2 crores as suggested in the last issue of the Bulletin (page 86) (instead providing a 25 per cent subsidy to the farmers to undertake it). The relief programme to the homeless and those who have suffered losses of earning members has quickly got under way to the extent of Rs. 6 crores. Housing loans of Rs. 250 per family have been provided to 5,000 weaver families in Salem plus Rs. 100 to replace lost equipment. 8,000 harijan families who lost their houses in the Bhavani taluk have, in addition, bamboos supplied free of cost by the forestry department. There is need to move building materials including bricks into the affected areas prices of palm leaves have doubled from Rs. 6 to Rs. 12 per hundred and bricks from Rs. 20 to Rs. 35 per thousand.

*Power:* The power shortage in the Country and the State will continue and increase till June. Continuing the analysis in the last issue of the Bulletin (page 87), 10 States which have imposed cuts varying from 5-40 per cent are introducing further cuts as the hydel reservoirs are being exhausted. Haryana which has cut power supply to industries from 33 to 50 per cent for eight hours a day, has from January ordered all power run industries to be closed on Saturday and Sunday, and every factory to reduce its power consumption by 50 per cent on other working days. Maharashtra, Andhra, West Bengal, Punjab, Mysore, Gujarat and Orissa are also increasing their cuts. The shortfall in the Fourth Plan power target of 3 million KW has led the Union Government to permit import of generation equipment to speed the completion of projects, as recommended in the last issue of the Bulletin. The imports are being permitted only where the supporting facilities are ready and are being improved on a case by case basis. This should in turn relieve the pile up of orders in our equipment plants BHEL and HEIL at Bhopal, Hardwar, Hyderabad and Tiruchi and enable them to speed their delivery schedules. For this State the power outlook is grim for the period upto the end of summer. The power requirement for the January-May 1973 period is 3,365 million units (mu). The maximum contribution during this period from our hydel stations is estimated at 795 mu, from thermal stations 750 mu, from Neyveli 715 mu, and from Kerala

40 mu, making a total of 2,300 mu. The deficit for this five month period is 1,065 mu which is 30 per cent of the State's energy requirements. The original 25 per cent reduces the deficit by 300 mu for the 5 month period leaving a net deficit of 765. This deficit is based on the assumption that the Electricity Board's thermal station at Ennore and Basin Bridge will operate to provide at least 150 mw continuously, and that for this coal supply will be available, and that Neyveli will produce 250 mw continuously, with 200 mw being available to our grid. The All India transmission losses which is currently 18 per cent have been reached in this State to around 16 per cent. It is against this background that a committee of industrialists and Electricity Board specialists during January examined the various alternatives to meet this serious deficit situation. The industrial and budgetary consequences of this situation are serious. The 25 per cent power cut for all industries and 15 per cent for continuous process industries had already led to a fall in production as industries have been working for four or five days only. And further increase in the power cut will lead to further closing down and staggering of production, large scale lay off of labour and a sharp reduction in tax revenue which may run into crores of rupees particularly in the case of continuous process industries whose tax is 50 per cent of this power. Under these conditions, the hard decision was made as from 1 February to increase power reduction from 25 to 40 per cent for H.T. supplies to industries to 25 per cent on H.T. supply for other purposes, to 25 per cent on the initial monthly consumption of 2,000 units for L.T. supply to industries increasing to 40 per cent beyond that, to 25 per cent for continuous process industries, while exempting domestic consumption which uses only 5 per cent of the total supply and agriculture and the essential services which consume together 35 per cent of the total. Even so commercial establishments have closed down at dusk, street lighting turned off at 9 p.m. — and agricultural pumpsets induced to change over to diesel sets. Arrangements have been made to transport 1 lakh tonnes of coal from Bihar by sea for the Ennore and Basin Bridge power stations. For Neyveli, BHEL, Tiruchi has placed orders for two 50 MW oil burners with a UK firm which will deliver it in 7 months, so that by the end of the year or by April 1974 Neyveli can increase its generation from the present 250 MW to 350 MW. In view of the Country's serious shortage and the power famine in this State continuing into the Fifth Plan, emergency action to avoid a further fall in industrial production requires that the Union Government remove all restrictions on diesel generation by industrial units. If the investment programmes recommended in the last two issues of the Bulletin are acted upon now, in the Sixth Plan the State power needs can be met by the generating sources in the State and in the Southern region. The gestation period of this sector requires advance action now on Fifth Plan projects as well as speedy implementation of projects in the balance of the Fourth Plan. The Neyveli authorities have negotiated an increase in the price of power supplied to the State from 5.9 paise per unit to 8.1 paise. The price of coal for our thermal units have increased from Rs. 75 per tonne to Rs. 140 and the price of furnace oil for the units is Rs. 312 per tonne. In other words the costs of power generation have increased by Rs. 12 crores per year. The Government therefore decided to impose from February 1, a surcharge on electricity rates in respect of H.T. and L.T ? supplies to industry. This levy will bring in Rs. 6 crores

annually, covering about 50 per cent of the added costs.

The long term issue in the power area is that with the growing and rapid industrialisation of the Country and the adoption of the new technologies in agriculture, the demand for power will always be ahead of the supply generated. Under these conditions the strategy should be a double one. The first is to increase the supply and take all appropriate investment, planning and design decisions in time to ensure an orderly growth of power generation plants. The conventional sources are hydel, thermal and nuclear. The plans and problems of future hydel and thermal projects have been analysed in earlier issues of the Bulletin. With regard to nuclear power generation, we face two problems. The first is the cost of the raw materials on which further research and development needs to be undertaken. The second is the technology involved. Here the Department of Atomic Energy has come to the conclusion that in view of the need to improve and master the technology, there will be no new atomic power plants developed in the Fifth Plan. The ten shut downs between January 1970 and September 1972 of the Tarapur Plant which was commissioned in 1969, and the setback by 9 months in the commissioning of the Rajasthan Atomic power project has led to this decision not to proceed with the Fifth Plan atomic plants planned by Irrigation and Power Ministry for a nuclear station in UP, a second nuclear station for the Western region, the extension of the Madras Plant from the current 470 MW by another 400 MW, and a plant at Srisailam for 600 MW. This is a serious decision as it will limit the power supply both during the Fifth and Sixth Plan periods. The substance of the decision, however, cannot be questioned—and that is to organise operations and regulate the technology so that future plants may be established on a sounder basis—with no interruptions and postponements. The Government, however, has to strike a balance between two conflicting objectives—that of indigenisation which in the long run is the solution for this Country, and the import of needed equipment and know-how which the present serious shortages call for. There is no either or in this matter and the recent moves of the Government to permit imports in thermal and hydel generation equipment on a selective basis should also be extended to the nuclear power area. In the meanwhile, the Department of Atomic Energy's plans to improve indigenous capabalities should be pushed forward. The Madras and Rajasthan plants depend on the speedy delivery of orders placed with the public and private sector firms. The delays in the 2 projects are due to short comings in the firms who are not committed to the tasks entrusted to them. The Department's programme to send the firms' technicians for training abroad and import the technology needed by the firms, its review of the operations of the firms through its engineers located in Calcutta, Delhi, Poona, Hyderabad and Tiruchi and the intensive development of the capabilities and commitment of at least 2 firms for each part needed, who will be committed to providing the personnel and facilities for manufacturing the nuclear power plant components, should enable the Department to review its decision on new stations during the Fifth Plan. In any case the feasibility studies should be undertaken now, following the kind of investigative work of the AEC site-selection committee which has been visiting Andhra, Mysore and recently Tuticorin in Tamil Nadu to determine the electricity and water availabilities which a second nuclear plant in the South in the Sixth Plan period will need. Apart from the conventional sources, the Fifth Plan should tap, on a

commercial scale, solar and wind energy resources as is being done in France, UAR and Israel to meet our serious supply position. The NCST projects for the Fifth Plan in this area should get off the ground quickly. The second part of the strategy is, given the supply shortage that we will face in the Fifth Plan, to ensure effective coordinated and unwasteful use of our resources at the State, regional and national levels. For this part of the strategy, all necessary elements are present. The generating stations—hydel, thermal and nuclear—are all in the public sector—Union or State or both, and the producing facilities for plant, equipment, fuel and transportation are also in the Union Government's hands. What is needed now to ensure effective use as well as economic operation of our present and future power generation and transmission resources is first a decision that future power plants will be developed on a regional or national basis—and not on State basis and second to set up machinery for effective coordinated use. The first condition follows from the fact that most States have exhausted the power sources that they can develop with the help of the Union Government. Now the regional or national frame should be used for further development. The second is the machinery which can be easily put in place at three levels—the State Electricity Boards which exist, Regional Boards which will construct and operate regional projects as well as operate the regional grid, and a National Board which will plan and operate national projects, coordinate regional and State projects and ensure effective and economic use of existing and emerging power resources.

*Bus nationalisation*: Further to the take over by the State Governments of all bus routes of 75 miles and over and all passenger divisions of private transport companies having 50 or more bus permits reported in Vol. I No. 11 page 15, Vol. II No. 6 page 5 and No. 8 page 2, the State Government by the Tamil Nadu Stage Carriages and Contract Carriages (Acquisition) ordinance of January 13 provided for the take over of the entire bus transport services in the State over a period of 5 years. The take over starts with districts where there are few buses (Nilgiris has the smallest number) and extends to other districts in that order. It involves the take over and operation of 6,500 buses during the five year period. The ordinance was first applied to the Nilgiris which was reported to have 133 buses. On the take over day, January 14, the total was 126, out of which 100 was taken over, the others being under repair or on travel outside the district. The other districts in the order of take over will be Dharmapuri 262 buses, Ramanathapuram 423, Kanyakumari 439, South Arcot 471, Salem 496, Tirunelveli 500, Thanjavur 542, North Arcot 598, Tiruchirapalli 642, Chingleput 645, Madurai 845, Coimbatore 1,056, and Madras 1,371, giving a gross total of 8,421. The actual take over, however, is likely to be 6,500. The ordinance provides for compensation ranging between 85 per cent of the acquisition costs for buses registered within six months of the take over to 4 per cent for those with 12 years registration. The total cost of the compensation will be Rs. 30 crores spread over a five year period. The reasons stated in the ordinance for the take over are exceptional. They include the need to connect all villages so that access to markets and mobility may be improved for all rural peoples, to carry to all areas the Government's health, education, welfare, family planning and nutrition programmes, the desirability of reducing wasteful competition among operators who concentrate on paying routes and the desirability spreading ownership more widely. In the Nilgiris the 126 buses were owned by 20 operators.

Now that this decision has been made, it is essential that consistent with serving the entire State and particularly the backward regions, the Government should plan to operate the service in the first instance in order to break even and not be a charge on public funds, and ultimately as a normal and effective business undertaking. Secondly it must run a large, comprehensive and continuous programme of training, research and development, together with workshops servicing buses all over the State, so that the efficiency of the public transport system is maintained at a high level. The reorganisation of the bus services within the city including the radial service, the restructuring of the routes, the fitting of proper lighting in the vehicles and the provision of special bus services for school and college students are moves in the right direction which must be followed up for more generalised application.

*Southern Railway*: Southern Railway is finalising its development programme for the Fifth Plan with the double objective for attaining financial viability by the end of the Plan period and rationalising goods and passenger services as between railway and road transport. The first objective of financial viability is already being attained through planned dieselisation and declining use of coal as the distance from coal fields lengthens. Thus gross receipts increased from Rs. 76.12 crores in 1967 to Rs. 83.14 crores in 1972 and the deficit reduced from Rs. 18 crores to Rs. 11.45 crores in that period. This process will be strengthened by taking on at least 60 per cent of high rated goods traffic like sugar and oil, programmed wagon building and line conversion, conversion of trunk and essential metre gauge lines to avoid the 14 transhipment points, introducing longer trains with heavier loads for bulk items and electrifying the heavy traffic sectors. It is proposed to quadruple the lesser on the Madras-Tiruvellore section, further electrify Madras-Erode, Jalarpet-Bangalore, Arkonam-Guntakal, and Erode-Olavakkot, use the diesel rail car on short distance heavy traffic sections and increase the supply and turn around of wagons—which has been the major bottleneck to growth as analysed in Vol. II No. 9 pages 12 and 13 of the Bulletin. The Southern Railway plans to increase the number by providing increased and improved repair facilities. 25 per cent of our 24,000 wagons on this railway are put away as in need of repair. Hence the decision to convert one major construction shop into a repair shop and improved utilisation by increased terminal facilities is timely and relevant. Similarly planning full trains for containers with special terminal facilities are under consideration. One of the most important future programmes is to coordinate railway and road traffic through the railway aiding and/or financing road transport in order to weed out what it calls irrational and economic railway traffic in these areas. The season ticket holders—students, office workers, factory hands—are increasing in numbers, bringing down railway income and increasing costs. Here it will be economic for railways to subsidise the rationalised bus transport of the State to carry this traffic. With the take over of the buses in the State, coordination, if not integration, of passenger traffic in railways and buses becomes a practical possibility.

***Housing and city development*:** The housing situation in the State continues to be serious. A recent survey presented at the December 1972 Indian Geography Congress shows that urban congestion is highest in this State, measured not in conventional terms of number of persons per house or per room but in terms of living habits and available space in the house. 18 per cent of urban houses are in

bad condition and 25 per cent are katcha. For the Country and the State 80 per cent of total house holds are in areas where the monthly rent is less than Rs. 20. Against this background, it is important not only to increase and speed housing construction but also help change our living habits. In this State the State Housing Board is not only increasing its building programme, using the VGP Housing project to construct 1 lakh houses in the next 10 years, it has also achieved a break through in the cost of construction which the Housing and Urban Development Corporation (HUDCO) is using for all India propagation and construction. With low cost pre-fabricated housing designs, the Tamil Nadu Housing Board has been able to reduce the current cost of housing for the weaker sections of the community, that is those earning less than Rs. 300 per month, from Rs. 7,500 and Rs. 10,000 per unit to Rs. 2,500 for a plinth area of 200 sq. ft. and Rs. 4500 for 400 sq. ft. In such construction, contrary to popular belief, the houses consume 30 per cent less cement and about the same quantity of steel as conventional construction. Further in the Korattur area fly ash and industrial waste is replacing cement to the extent of 20 per cent, with an overall cost reduction of 4 per cent. Further improvements are underway on thermal conductivity, fire hazards and the wood work and for the latter, HUDCO has made a grant of Rs. 14 lakhs to the Housing Board for a new wood work unit at Karunanidhi Nagar. In this area of housing, Kerala's scheme for building within the year 1 lakh houses for the poor sector at a cost of Rs. 2,500 per house is an instructive lesson. 49,000 houses were completed by January and 2,000 distributed to the homeless. Apart from the Union Government grant of Rs. 7 crores for the scheme, the entire community—students, workers and intellectuals—have enthusiastically responded to this effort and are actively participating in it. There are important pointers here for this and other States in the single mindedness of the housing minister and his successful techniques in mobilising general support from the Union Government and the community for this form of the anti-poverty effort which all States should be engaged in.

Urban development problems are on us now. The Country has the highest urban population percentage (20) in Asia and Africa, with the accompanying advantages in the way of industrialisation and increasing literacy. However, the limits to further expansion of the cities are already on the horizon. The Madras Metropolitan Area (MMA) with an area of 1,180 sq. kms. and a population of 31 lakhs will increase to 42 lakhs by 1981 and 53 lakhs by 1991, giving rise to problems of transport, housing and city budgets. On the transport side, the city which had 14,000 motor vehicles in 1951, now has 43,650 and will have 1.5 lakh motor vehicles in 1981 and 3 lakhs in 1991. Hence the metropolitan plan (see last issue of the Bulletin page 90) provides for containing the population of the main city at 30 lakhs, while 16 lakhs are to be accommodated in six major urban nodes along the main outlets of the MMA, each urban node being a self contained township. Eight corridors within this plan will need rapid transit facility, with priority for the North-South 26 km corridor which should have an underground railway linking Ennore and Tiruvanmiyur passing through Manali, Tiruvottiyur, Royapuram, George Town, Central station, Triplicane, Mylapore and Adyar. The cost of the project is Rs. 180 crores and will provide travel facilities for some 77 lakh trips compared to the present 27 lakhs. Even this facility will require electrification of the East-West corridor line and the provision of suburban services along the

existing broadway line. On the housing side, there will be need for implementing the programme proposed in perspective plan referred to earlier, with special reference to completing the slum development programme and providing it with various infrastructural and educational facilities. Improvements similar to those of the Cooum river which will soon be both navigable and available for pleasure boating are needed with regard to the Adyar river. The city's and the State's tourist facilities will also be increased when the Rs. 1 crore project for the development of Mahabalipuram, a wax museum using the craftsmanship of Chidambaram, Madurai, Tiruchi, Swamiarmalai and Nachiarkoil for the purpose and an organised network of travel facilities to the historic and science areas are developed.

## National

*Fifth Plan:* In late January the National Development Council approved the Approach Paper to the Fifth Plan. This approval must be taken to mean approval of the policy options presented to the Council in the Approach Paper, a document which is of the same order of qualitative excellence as the Mahalanobis model which preceded the second plan formulation. The approved objectives are the removal of poverty and the attainment of economic self reliance. The consequent 10 point strategy include (a) 5.5 per cent overall growth rate of GNP, (b) expansion of productive employment, (c) a national programme of minimum needs (see Vol. II No. 6 page 8 of the Bulletin), (d) extended social welfare programmes, (e) concentration of investment on agriculture, basic industries and industries producing goods for mass consumption, (f) a public procurement and distribution system (g) export promotion and further import substitution (h) a price-wages-income policy, (i) institutional, fiscal, and non-fiscal measures to reduce inequalities—economic, social and spatial. It is now necessary to devise the detailed policies to give effect to the approved strategy. One such policy is to develop a detailed production table or series of tables at as low a micro-level as possible in order to avoid the unreal aggregations which an all India table will face. Such a table will not merely be an input-output table but will indicate how much and in what time sequence investments will be diverted to industries engaged directly or indirectly in the production of mass goods and the production magnitudes of industries producing what has been described as non-essential goods. Policy will have to be developed and specifically approved by the Government on the profitable sales of these goods through exports. The approach paper presents two variants with regard to reducing the inequality in the distribution of consumption expenditure which is presented in some more details, though in summary from what is stated in the approach paper.

| | 1973-74 Population 585 m | | 1978-79 654 million | |
|---|---|---|---|---|
| | *Total consumption in Rs. crores* | *Per capita consumption* | *I variant per capita consumption* | *II variant per capita consumption* |
| 1. Bottom 3 deciles 175 million in 1973-74 196 million in 1978-79 | 5,177 | 294.98 | 325.2 | 445.2 |
| 2. Middle 4 deciles 234 million in 1973-74 261 million in 1978-79 | 13,077 | 558.85 | 615.9 | 643.1 |
| 3. Top 3 deciles 179.8 million in 1973-74 196.2 million in 1978-79 | 19,704 | 1,122.74 | 1,237.5 | 1,081.2 |

| | 1973-74 | 1978-79 | | % in increase or decrease of 1978-79 over 1973-74 | |
|---|---|---|---|---|---|
| | | *I Variant* | *II Variant* | *I Variant* | *II Variant* |
| 1. Bottom 3 deciles | 24.6 | 27.1 | 37.1 | + 10.1 | + 50.8 |
| 2. Middle 4 deciles | 46.6 | 51.3 | 53.6 | + 10.1 | + 15.0 |
| 3. Top 3 deciles | 93.6 | 103.1 | 90.1 | + 10.1 | − 3.7 |

In the approach paper the decline in the consumption of the top 3 deciles under the second variant is expressed as a decline from Rs. 84.42 to Rs. 80.36 for the rural rich from Rs. 113.27 to Rs. 108.07 for the urban rich as against the overall decline of 3.7 per cent presented in the table above. As the National Development Council has approved this variant, the fiscal and non-fiscal policies and instruments to implement this decision must now be elaborated by the Union and State Planning Commissions. This policy must not only be aimed at curtailing the consumption of the top 3 deciles, it must ensure that their additional incomes flow into additional public and private investment efforts and that there are massive increases in employment in the agricultural and retarded areas of each State as part of the redistributive growth process. What perhaps made the National Development Council accept the preferred variant without further probing is the results of the models of the inter sectoral patterns of growth of the two variants which are about the same—particularly in the core industrial sector. What part this optimistic conclusion played in acceptance of the model, it is difficult to say. But its reality lies in the fact that the production pattern is aimed at achieving the 5.5 per cent growth, even though the redistributive equality assured in the second variant as well as the changes in the production table, may well take beyond the Fifth Plan period for achievement. It is necessary also for us to build an income earning table for the Country in order to devise the necessary non-fiscal instruments and to provide a firmer basis for estimates of savings—both that of the households and total savings from all sources. If, for instance, household savings are 3.2 per cent of gross domestic savings as RBI and NSS computations indicate, the household savings work out at Rs. 8,813 crores and the relation of this to the Rs. 24,070 crores computed in the approach paper needs clarification. The projected development outlays of the Fifth Plan are :

(Rs. crores at 1971-72 prices)

| | Public sector | | | | |
|---|---|---|---|---|---|
| | current devel. outlay | invest-ment | total devel. outlay | private sector investment | total investment (2 & 4) |
| 1. Agriculture | 1400 | 5600 | 7000 | 2900 | 8500 |
| 2. Mining & Manufacturing | 275 | 7425 | 7700 | 5980 | 13405 |
| 3. Electricity | 50 | 5650 | 5700 | 100 | 5750 |
| 4. Construction | — | 25 | 25 | 75 | 100 |
| 5. Transport & Communication | 75 | 6775 | 6850 | 1845 | 8620 |
| 6. Trade & Storage | — | 550 | 550 | 1100 | 1650 |
| 7. Housing & Sites | — | 925 | 925 | 3440 | 4365 |
| 8. Banking & Insurance | — | 75 | 75 | 10 | 85 |
| 9. Public Administration & Defence | — | 300 | 300 | — | 300 |
| 10. Other services | 4050 | 2420 | 6470 | 120 | 2540 |
| 11. Education & Training | 1550 | 700 | 2250 | 100 | 800 |
| 12. Scientific Research | 150 | 150 | 300 | — | 150 |
| 13. Health | 660 | 280 | 940 | 20 | 300 |
| 14. Family Planning | 480 | 80 | 560 | — | 80 |
| 15. Nutrition | 500 | — | 500 | — | — |
| 16. Urban Development | 10 | 290 | 300 | — | 290 |
| 17. Water supply | 10 | 790 | 800 | — | 790 |
| 18. Social Welfare<br>19. Welfare of backward<br>20. Labour Welfare | 470 | 50 | 520 | — | 50 |
| 21. Miscellaneous | 220 | 80 | 300 | — | 80 |
| 22. Total (1 to 10) | 5850 | 29745 | 35595 | 15570 | 45315 |

*1973-74 Plan* : The Annual Plans for the last year of the current Fourth Five Year Plan 1973-74, is being finalised for all States. Assistance to the State's Plans for this last year is Rs. 800 crores which is the balance left from the Rs. 3,500 crores of the Plan period. The States Plans for 1973-74 will be about Rs. 150 crores above that of the current year. For the Centre and States together the total plan outlay will be about Rs. 4,000 crores which is only marginally above the 1972-73 authorisation. On the resources side, tax yields are likely to be around Rs. 600 crores above the yield in 1972-73. In the first eight months the increase was Rs. 426 crores, with customs and excise alone accounting for more than 75 per cent of the increase mainly due to good foreign trade performance. With the large unused resources with the banks (see last issue of the Bulletin page 94) and the potential in small savings, the government has rightly raised the third tranche of loans for Rs. 45

crores to meet its repayment obligations. But this increase in resources by over Rs. 600-700 crores has to be seen against certain constraints. First the December 1972 RBI statement shows an increase in the overdrafts of the State Governments to Rs. 107 crores which is the result of the gap between their efforts at resources mobilisation and their Plan expenditures. With possibilities of receipts from the additional taxes, the results of the increased borrowings (Rs. 134 crores against Rs. 91 crores in 1971-72) and the pruning of non-development expenditures, this overdraft may turn into a small surplus by the end of March. There are the large Union Government expenditures on drought relief in Maharashtra, Bihar and Andhra Pradesh and flood relief in Orissa and Tamil Nadu which together with the crash rabi programme, the special employment programme (for which Rs. 90 crores are provided) and the interim recommendations of the Third Pay Commission the increased Union Government revenue resulting from tax buoyancy will be quickly eaten up. The net result is likely to be that the deficit will not be far from the budgeted figure of Rs. 25 crores. The inflationary effect of the additional Rs. 600-700 crores expended on the various programmes at a time of shortages in a number of consumption and intermediate goods has to be taken into account in the forecast of the price trends in immediate future. All these positive and negative elements will be reflected in the Union budget for 1973-74 being presented to the Lok Sabha. Further the external resources position of the Government has been affected by the import of 1.52 million tonnes of food grains at a cost of Rs. 150 crores, plus continuing expanded imports of steel, fertilisers, non-ferrous metals, vegetable oils and other essential raw materials. As a result the foreign exchange resources (outside of SDRs and gold) declined by Rs. 80 crores during the six months June to December and stood at Rs. 400 crores which against our annual import bill of Rs. 1,800 crores is not a satisfactory position. The total reserves including gold and SDRs now stand at Rs. 511 crores ($700 million). The position would have been worse if exports had not shown an upward trend as they have done standing at Rs. 1,070 crores at October 1973 (see Vol. II No. 10 page 10, No. 11 page 5, No. 12 page 19 and Vol. III pages 20 and 21). The Budget for the coming year will have to strengthen and contribute to further export promotion.

*Prices and wholesale food grains take over:* Further to the November 1972 wholesale price index of 210.1 analysed in the last issue of the Bulletin (page 93), at January 6, 1973, the index rose to 211.7. For 1972 the price rise was 7.8 per cent compared to the 3.9 per cent rise in 1971. The price rise in the year 1972 was higher at 10.5 per cent than the average rise of 7.8 per cent, the major rise taking place in the second half of the year—the first half showing a rise of just 1 per cent. The group of food articles registered a very high increase at 11.4 per cent, with bajra rising by 41.4 per cent, jawar by 13.9 per cent, rice by 10.5 per cent. The highest rise was in tobacco (35.9 per cent), followed by coke (13.8 per cent), mineral oils (6.6 per cent), kerosene (9.1 per cent). Cotton and textiles registered substantial price declines. The inflation hit the poverty sector, the bottom 3 deciles, in so far as they have the purchasing power for purchasing coarse grains and the middle 4 deciles. And so the 1972 price escalation has worsened the inequalities in the Country. In 1973 we are starting at a high level of prices of all essential goods and the rise is continuing. Edible oils prices are continuing to rise, particularly that needed by the poor and lower

middle class sections. Ground nut oil prices in January were 25 per cent higher than in September and less steep rises are registered for gingelly and coconut oil. The first prerequisite of the anti-poverty programme is to ensure some measure of price stability. The three pronged drive to contain the inflationary spiral discussed in earlier issues—increased production, industrial, agricultural and processed, decrease in deficit and inflationary spending and a workable distribution network—has still to get under way. The rabi crop results and the pick up of industrial and intermediate units are awaited. The spending programme has not been curtailed due to droughts, floods, bonus and pay commission payments. On the improved distribution front, the programme of take over of wholesale food grains trade needs analysis in terms of action at Union and State levels. As pointed out in the last issue of the Bulletin (page 93), the programme which must fit into the Fifth Plan strategy involves a long term comprehensive plan for the procurement, storage, transport and sale of essential commodities through efficiently run retail outlets under public control, and a short term scheme of increased production of food grains and their distribution through a network of fair price shops. This short term action requires a pricing policy which will combat inflation and assure a fair price to the farmer, adequate supply at reasonable prices to the poverty sector and incidentally lower the costs of agricultural raw materials to industry, keeping down the constant rises in salaries and allowances of Government employees and industrial workers, and lessening the distortions existing in the unfavourable terms of trade for industry vis a vis agriculture. At present the difference that is between the price at which wheat is issued by Union Government stocks and that charged to the consumer by the fair price shops is Rs. 10 in Bihar, Gujarat, Maharashtra, Rajasthan and West Bengal and Rs. 4 in Delhi, Punjab and Madhya Pradesh. The difference is larger in the other shops. There is thus a case for narrowing the gap between the prices which the farmer receives, the price charged by the Government stocking agency and the consumer. This is the case for the public distribution system. This take over has important financial consequences. If the food grain production this year is around 100 million tonnes, and the procurement is doubled from the current 5 million tonnes to 10 to 12 million tonnes within the 30 million tonnes available as marketable surplus for effective distribution, the Government will need Rs. 3,000 crores during the year for the take over. The procurement and other costs for 1 million tonnes is Rs. 100 crores. Of this Rs. 3,000 crores, commercial banks are already financing the wholesale trade in the private sector by Rs. 1,500 crores and if we assume some reduction in distribution cost, the additional resources that the Government will have to mobilise will be Rs. 1,000-1,500 crores. On this a group consisting of the nationalised banks and the Union Finance Ministry is at work to provide the necessary finances. Second there is the problem of storage. The Central Warehousing Corporation has more than 800 warehouses and the States Warehousing Corporations have an equal number. Together they will be responsible for all storage, as in Bihar which has taken over the wholesale trade in foodgrains. The third problem is the possibility of rationing which may have to be introduced in major cities as long as there is a shortage of rice and wheat. If there is rationing the subsidy on the distribution of foodgrains which is budgetted at Rs. 100 crores for this year (see Vol. II No. 4 page 5) will have to

be doubled to Rs. 200-240 crores, in spite of the economic survey comment of last year that the subsidy would be discontinued. Procurement and stock piling are costly operations. For every million tonnes procured, Rs. 87 crores is locked up. Wheat is procured at Rs. 76 per quintal and issued Rs. 78 per quintal, while procurement costs Rs. 11 per quintal, distribution Rs. 9 per quintal and stocking Rs. 8 per quintal. Thus the public distribution system will involve a loss of Rs. 24 per quintal at current prices and this is why the rationing which will be needed to make the public distribution work will involve the higher subsidy. This too is now being worked out, and the Bihar and Maharashtra experiences watched on all these issues, including the reemployment of workers of the private wholesale trade in the public distribution system and other areas. Tamil Nadu has a little more time than other States to ready itself for an effective public operation of the grain trade. Bihar has decided to take over wholesale trading in grains and is setting up a Food and Civil Supplies Corporation which will, in cooperation with FCI, and the State Cooperative Marketing Federation implement the scheme. The scheme will need Rs. 5 crores for the rabi season and Rs. 25 crores for the kharif, an increase in fair price shops from 21,000 to 40,000 with a staff of 3,000. Maharashtra is taking over the wheat trade as it has already the jawar and rice trade. Rajasthan is still working on the details of the machinery for the take over of 7,00,000 tonnes of wheat and 9,00,000 coarse grain. U.P. and West Bengal have not yet set up the machinery for take over. Gujarat has set up plans for take over not only of rice and wheat whose movement out of the State is to be banned, as well as bajra, jawar and maize which form 2/3 of the State foodgrain production. In fact while wheat sells at Rs. 88 a quintal, bajra, jawar and maize sell at Rs. 100 a quintal. Hence the coarse grains prices also need to be brought down. Kerala is ready to take over and already has a complete rationing system and distribution network. It needs more rice imports. The effect of the take over of the wholesale trade in wheat and rice on prices will be known during the current year. It is one instrument in the general strategy to contain inflation.

*Interest rates*: The January review of the functioning of the system of differential interest rates by the nationalised banks showed that while the Banks were accumulating large surplus funds, they were not operating the differential interest rates effectively. On the one hand the total bank deposits stand at Rs. 8,200 while their gross advances are only 67 per cent against 72 per cent a year ago. This has led not to increased financing of the vulnerable sector—the small farmer, the small industrialist and small transport operator—but to lowering of lending rates and competition among the banks for loans to large firms. The loans to backward areas has amounted only to Rs. 70 lakhs (against the target of Rs. 20 crores), which is an average of Rs. 428 per person living in the 163 backward districts identified by the banks. Among the measures and guidelines now formulated for an expansion of the differential interest rate system as a result of this review are: breakdown of targets into more specific quantums for loans to small farmers, technocrats, village artisans and other self employed persons, the priority to urgent rural electrification and minor irrigation schemes, an increase in the proportion of lending to the priority sectors, the removal of regional disparities commensurate with the increase in deposit mobilisation and bank branch expansion, and the training and retraining of the staff posted to rural branches so that their urban experience

and urban oriented procedures might be turned around to meet the needs of the rural areas.

*Water grid:* Discussion in January at a National seminar on the Ganga-Cauvery link project and the international seminar on hydraulics of allevial streams represent useful and continuing debates of the water position of the Country (see Vol. II No. 8 pages 9-10 of the Bulletin) and the Ganga Cauvery link project. The rivers in India carry about 5.6 per cent of the total river waters of the world and the total water resources of the Country as in the world are nearing exhaustion with the increasing population in this and other countries. The Union Government has taken the first step in this situation to develop a national policy on water in the draft bill introduced in the Lok Sabha declaring water a national asset. Such a policy should deal with short term issues as the speedy settlement of inter-State water disputes (see Vol. II No. 3 page 6), oversee and coordinate the investment of some Rs. 2,500 crores in this area of the Fifth Plan as well as with long range problems of the integrated use of our land and water resources, the competitive demands of agriculture and industry, a pollution-free environment, and the transfer or diversion of water resources from one basin to another to meet the needs of drought prone areas. This last issue, the needs of drought prone areas, is one of the many questions raised in the continuing debate on the Ganga-Cauvery link at the January seminar. To summarise the Rs. 2,500 crore scheme, the combined snow melt from the Himalayas and the monsoon rains, fill the northern rivers particularly the Ganga and Brahmaputra to bursting causing tremendous flood damage. The project is to divert for about five months a year, the high flow period of the Ganges, about 25,000 million cubic metres from the flood water of the Ganges to the drought prone regions of central, western and southern India by building a north-south canal 70 metres wide and 3 to 7 metres deep cutting across the basin of Sone, Narmada, Tapti, Godavari, Krishna, Pennar, terminating at the upper anicut in the Cauvery. It is aimed to meet in part the water demand of the drought prone areas of Rajasthan, Gujarat, Madhya Pradesh, Maharashtra, Andhra Pradesh, Mysore and Tamil Nadu. The debate now ranges around technical problems of the cost of maintenance of the canal (computed at Rs. 700 crores per annum), the difficulties of its being used for navigation because of the speed of water and the many lifts, drops, dams, locks, regulators and tunnels enroute, the problems of high power pumping. the dangers of silting in conduits and erosion on machines, the effects on the flooding potential of the Ganges, the ecological consequences to the Indo-Gangetic plain from interference with the delicate silt flow balance, problems of seepage and possibilities of changes in rivery flows. In addition Mysore has raised questions above the proposed alignment and has suggested that it be changed to serve the Mysore-Maharashtra famine belt. It is good and necessary that all these technical issues be debated and solutions found to them. The project itself is a sound long term one and at this early stage of project formulation all these technical problems should be brought out into the open and resolved. The time period is important. It is not till the end of the century that the powerful pumps needed will be available. The navigation network can be broken up into small economic segments. The ecological issues call for building certain types of locks and dams. Finally once the project plan has been established, a start can be made by establishing the regional grids, which as constituent parts of the national grid, can be of immediate help to the drought prone areas and ensure an effective and economical use of the region's water resources.

*National Production Front*

*Public sector performance:* The RBI review of 105 Government *companies* (56 Union Government companies and 49 State Government companies) for the year 1970-71 is both depressing and *encouraging*. The 105 companies showed a net loss of Rs. 37.08 crores mainly because *despite higher production* (by Rs. 391 crores), earnings (by Rs. 356 crores) and gross profits (to Rs. 101.8 crores), with interest obligations were higher (at Rs. 104.38 crores). The basic problem is to increase the profitable working of these concerns, *so that* their gross profits can meet their tax and interest obligations and show a net profit. The encouraging element is that half the companies (30 *Union Government* and 23 State Government units) showed a net profit. *It is the* large companies—that is those *with paid up* capital of Rs. 20 crores or above—which need to improve their performance. Their return on capital is *exactly half (at 1.9* per cent) of the smaller companies and their ratio of gross profits to sales much lower at 3.9 per cent.

*Steel and iron ore:* Steel *production* has been expanding and can reach a 4.5 million tonnes ingot level for 1972-73, though the target for next year 1973-74, suggested by the mid term appraisal document (see Vol. II *No.* 3 pages *4* and 5) at 8.25 million tonnes cannot be reached. The public sector plants are doing well. *For the calendar* year 1972 the HSL production was 3.9 million tonnes of ingots and 2.8 million tonnes of saleable steel—*the highest they* have attained since they were commissioned. Bhilai production passed 2 million tonnes of ingots and 1.74 million tonnes of saleables. *This is 80 per cent capacity* and if it moves up to full capacity as it can, *it can increase its ingot* production *by* 0.5 million tonnes. *Rourkela maintained its production* at 1.1 million tonnes of ingots and *0.72* million tonnes of saleables. *It can* expand its production to at least *80 per cent* of capacity. Durgapur's production has been at its lowest target of 0.7 million tonnes *ingots* and 0.4 million *tonnes of saleables. The capacity of these* three HSL plants is 5.9 million tonnes, so that there is here a cushion of 2 million *which should* be fully used before the *end of the* current Plan. Bokaro has also started well. In the first 3 months it has produced over 1,20,000 *tonnes of* hot metal and 1,40,000 tonnes of coke. Its first stage for a capacity of 1.7 million tonnes of ingot production is about complete and the second *stage expansion* to 4 million tonnes has been taken up (see Vol. II No. 11 page 13 of the Bulletin). *In the last issue of the Bulletin the* expansion plans *for* all the units were analysed (page 112) and preparatory work on *them was shown* to be under way. The feasibility study *for* the TISCO expansion from 2 million tonnes to 4 million tonnes *is to be undertaken by Nippon Steel at a cost of Rs. 35 lakhs.* The decision on this expansion and as to who will finance the study—Govern*ment or* TISCO—has taken too long a time, given our serious current and future shortages in steel supply. It is hoped that TISCO with its traditional efficiency and speed will help in completing this feasibility report and that the Government will accept at least in part the offer of Nippon Steel to provide the equipment for expansion. Here again there is need for a balance between our contrary *objectives of self reliance and increased* production, between indigenisation and reducing our import bill on the one hand, *and speedy increased* production on the other. The contradiction can be resolved on a case by case basis. At the end of January the Steel Authority of India *Limited (SAIL)* was *set up* starting with full responsibility *for HSL*, Bharat Coking

Coal, National Mineral Development Corporation, and Salem Steel, and extending later to Bokaro, Hindustan Steel Construction and in the final stages taking over the Vijayanagaram and Vishakapatnam plants when they come into being. SAIL, with a capital of Rs. 1,300 crores, will also own all Government shares in Bolan ores, Manganese ores, Mysore Iron and Steel, TISCO and IISCO, plan and organise an integrated development of iron and steel and their input industries of iron ore, coking coal, etc., decide the financial and physical targets of all its subsidiaries, perform the entrepreneureal function of deciding on new investments, evaluate risks and make operational decisions in light of the total steel situation, and act as agent of all the public financial institutions LIC, UTC, IDBI, who have invested in the plants. It is to be hoped that SAIL will bring into being an integrated policy and efficient programme of steel development and production. Another important institutional development at the same time is the setting up of the Iron Ore Board to ensure the regulation, conservation and development of our iron ore resources and efficient and economic production. India's iron ore resources are its second largest mineral resource, the Country is the seventh in the resources position (after USSR, Zaire USA, Bolivia, Brazil and Canada) and the ninth largest producing Country. Our stakes are higher in this mineral both because of the input needs of our steel industry and because it is the third largest foreign exchange earner—after tea and silk. The Board will act as the chief adviser to Government on all aspects of iron ore utilisation, prepare plans for conservation and development of the resources, establish the proper balance between indigenous use and consumption and export and help to create a coordinated infrastructure—working with banks, railways, ports, State governments and the SAIL. In this connection the Board can help MMTC which has now had to stop purchases of iron ore in the Bellary-Hospet area as the loading stations are full and stacked into little hills. The result is reduced mining and falling ore prices. Our main export customer Japan is profiting by these declining prices and the fact that our ports cannot handle modern giant carriers makes the carriers call less frequently and still further depresses prices. Madras is in a position to handle these carriers but the railways are not able to transport the ore from the Bellary-Hospet area, because nearly half the box wagons engaged in this movement has had to be rushed to carry emergency coal supplies to the power stations, to our steel plants, etc. (see Vol. III pages 17 and 98). Another small area where the MMTC can be helped is in the elimination of middlemen between the corporation and ore producers, the middlemen who unauthorisedly sub-lease mining rights for a premium of Rs. 2 to 3 per tonne. An integrated coordinate infrastructure is badly needed in the development of our iron ore resources and the Board can provide this. The Board will also be the research and development body for this important resource and fill a serious gap in our research infrastructure.

*Coal:* The take over by the Union Government of the management of 464 non-coking coal mines in the private sector by the 30 January Ordinance, following the take over in September 1971 of 214 coking coal mines, places all control and responsibility of our coal resources in the hands of the Government. The only coal mines outside Government control are the captive coal mines attached to TISCO and IISCO. The January take over has two purposes.

First against the current production of 55 million tonnes of non-coking coal, the demand by the end of the Fifth Plan is estimated at 105 million tonnes. This calls for a heavy capital investment of Rs. 100 crores, which the private sector will not be able to raise in five years and which also raises organisational problems for it. The private sector has suggested that it can increase coal production by 80 per cent by 1978-79 and will raise the required Rs. 79.56 crores. This proposal, however, faces the reality of the private sector being in rather heavy default on their current royalty and other dues to the State Government and provident fund programmes to the extent of Rs. 30 crores. In fact, the RBI working group on the coal industry finances in which the private sector had representatives had declared flatly that the private industry has run out of finances and has no resources to contribute to the investment effort required. Further the prospect of nationalisation has caused delays and distortions in the production of this vital sector—vital to the Rs. 5,000 crores power programme being envisaged in the Fifth Plan. Second with steel and ore under public management, the extension of public control to coal will, it is hoped, make possible rational rail movement, optimum utilisation of wagons and modernisation of loading, loading points and improvement other aspects of the coal movement in the Country. These are important and convincing considerations and now that steel, iron ores and coal along with railways are in the public sector, it is hoped that there will be a sensible improvement in production and rapid and rational railway services to meet the production increase.

*Fertilisers and capacity problems:* Further to fertilisers shortage—both national and international—reported in the last issue of the Bulletin (page 96), decisions have been made to set up on a crash basis 12 new fertiliser projects during the Fifth Plan so as to increase fertiliser capacity in the Country to 7 million tonnes to meet the 1978-79 demand for 5.2 million tonnes. Five of the plants are to be set up by Engineers India Limited (EIL) with the collaboration of Tokyo Engineering Company at a cost of Rs. 500 crores, of which Rs. 170 crores will be in foreign exchange, for which a yen credit is being negotiated. The five plants will be in the public sector, three with inland locations producing 900 tonnes of Ammonia and 2 in coastal locations with a daily production of 1,300 tonnes of phosphatic fertilisers. Here again the conflict between indigenous and speedy production is faced. EIL and Toyo are required to complete the setting up of the plants within 32 months and in return have asked for authorisation to import essential items, even if there is indigenous capacity if the Indian deliveries are not on time. In turn the Fertiliser Corporation and other units are asking for the same facility. There is an important issue here concerning full use of capacity on which the past issues of the Bulletin and the Approach Paper dwell as an important part of the strategy of growth. The managements of BHEL and HEIL call attention to the fact that in spite of the Power shortage crisis and plans for a huge power development programme, the inflow of orders into these equipment and machinery producing firms during the last six months has slowed down because the Electricity Boards prefer importing the generators and components for speedy delivery. The result is that existing orders for 120 MW units at Bhopal finish in 1976 after that the factory there as well as the 110 MW unit factory in Hyderabad could go out of business. The two public sector units also call attention to the importance using their existing capacity for 110,120 and 200 MW generators and

then move to higher ranges of 300, 350 and 500 MW in the Sixth Plan also to avoid serious imbalances. This again is linked not only to the problem of capacity utilisation, but also to technical soundness of the operation. Uninterrupted and steady manufacture of fewer sizes for the next four or five years will make possible better integrated indigenous manufacture and mastery of the processes in place of rushing to higher sizes which will be wasteful of our resources—human and financial, haphazard and diversionary. Meanwhile the two units like all other such units, state that they are evolving designs for the larger sizes as they have for Kalpakkam (235 MW) and Rajasthan (250 MVA, 230 KV). The moral is that the policy objective of capacity utilisation has to be turned into precise production decisions with all the consequences of such decision.

*Oil:* Further to the demand and supply for crude analysed in the last two issues of the Bulletin (pages 15 and 97), the overall situation is that the Country produces 7 million tonnes annually against the current total processed crude of 21 million tonnes, and a demand for 44 million tonnes is anticipated by the end of the Fifth Plan. The world price of crude is rising rapidly as a result of the Teheran agreement under which not only do the producing countries join together to obtain a higher share of the income of the international oil companies, but both the producer countries and oil companies joining together to squeeze the consumer countries by supplying oil only at higher prices. Thus the three foreign oil companies have asked India for two price increases—16.5 cents per barrel to meet the price rise in the world market and 23.3 cents per barrel to meet the anticipated 6.8 per cent increase under the Teheran agreement. Without these two increases now demanded, the price of crude has risen from $1.28 per barrel in 1970 to $2.08 per barrel today. Hence the urgency to develop indigenous sources of crude. For this purpose, the Government has accepted the first variant of the Soviet techno-economic study to establish 64 million tonnes at a cost of Rs. 624 crores as additional reserves by ONGCC. To achieve this, a large programme of offshore oil exploration is to be undertaken with foreign collaboration. There is already such exploration in the West coast of Bombay, the Bombay High, by the ONGCC. In India's continental shelf, the exploration will be conducted in the coasts of Andaman and Nicobar islands, Bengal, Orissa, Kerala and the Laccadives. For this, negotiations are under way with 13 foreign companies from Japan, Canada, France and the UK for contractual arrangements under which the selected foreign firms will invest risk capital on the exploration and will be repaid if oil is found at 35 per cent of the oil at concessional rates. This is better than allowing them equity participation and sharing the ownership of the oil explored. This action goes back on the policy of relying solely on indigenous skills and know how but the oil situation for the Country is so serious and the international price pressures so heavy, that there is no alternative to using the foreign companies. The Government is also planning to take up Esso's offer of 75 per cent of equity participation, while not taking up the offer from Burmah Shell which does not offer similar terms. Caltex has not as yet made a proposal. With the rising trend of world petroleum prices and the squeeze on the consuming countries by the producing countries cum the oil companies, the long term prospects of nationalisation of the foreign oil companies is very much in the offing. In view of the estimated demand during the Fifth

Plan, refinery capacity is being increased by the construction of the 6 million tonnes refinery at Mathura, a 4 million tonnes refinery at Goa, and the expansion of the refineries at Barauni, Koyali and Haldia by 7.5 million tonnes. This package of measure should help in moving towards a more self reliant oil position for the Country.

*Textiles, Sugar and Jute:* The problems of the textile industry discussed in the last issue of the Bulletin (page 98) are now receiving attention from the Government and the industry. The demand for man made fabrics is rising internally and internationally. Internally the major problem is the high and rising prices of man made fabrics which is one of the essential goods of the common man. Special efforts are needed for reducing its production costs as well as its sale price. On cutting back on costs, the research centres at Ahmedabad, Coimbatore and the new one set up at Kota have a major research and development effort ahead of them. This is one of the few areas where the private sector is making an R & D effort, which is even so a part of the private sector small share (8 per cent) of the total Rs. 200 crores that the Country is expending on R & D (0.5 per cent of GNP). On cutting back on prices, there is need to reduce the distribution margins which in the case of synthetics is about equal to the average price of cotton cloth. The price here can be reduced by 1/3 without touching the normal profit margin, as otherwise there will have to be a take over by the State to reduce prices. The other aspect is the need to expand exports, where there is heavy competition from Japan, Taiwan and Korea. The quality production of man made textiles for which there is a large foreign market requires modernised and sophisticated equipment. The Union Government has now come forward with an offer to finance this modernisation programme, starting with the export sector, so that the industry can recover the foreign exchange investment through additional exports. This need for quality production is more general for all medium and small industry products. The testing laboratories being set up by SSIDO and the State Governments all over the Country should be a means of such quality improvement. Sugar production is increasing. For the first two months of the 1972-73 season, October and November 1972, it was over 5 lakh tonnes compared to 2.6 lakh tonnes for the first two months of 1971-72. In the 1971-72 production, sugar cooperatives did well, producing 42 per cent of the total production of 31 lakh tonnes. Out of a total of 221 factories, 79 are cooperative factories and this number is being increased by the 42 cooperative factories now under construction, so that from 1974-75 they will increase by 50 per cent their contribution to total sugar production. The membership of grower membership is constantly increasing with a share capital of Rs. 38.2 crores and a further Rs. 32 crores mobilised as non-refundable deposits. Jute finished goods production in 1972 was over 11 lakh tonnes which was higher than that of the previous two years. This at a time when the jute crop is estimated at 57 lakh bales against the normal output of 70 lakh bales. The 1972 supply was increased by a 1971 over of 11 lakh bales and 2,27,000 bales imported from Bangla Desh. But the prices —both of fibre and the finished goods— are high and rising and their reducing international competitiveness. There is here a case for some reduction in the fiscal levies to stimulate exports.

*Agricultural production:* All indications are that the total food production for the current year will be 4 million

tonnes less than last year, so that the declining trend in food crops continues for the second year in succession, due to 2 years of droughts – from 108 million tonnes in 1970-71, to 104 million tonnes in 1971-72 and 100 million tonnes in 1972-73. The Country needs 100 million tonnes for its consumption and it seems that the rabi crop will yield an additional 6-7 million tonnes not the 15 million tonnes forecast earlier (see Vol. II No. 10 page 9) due to continuing drought conditions, power shortage and fertiliser short supply. The buffer stocks stood at 3 million tonnes, including one million tonnes of kharif cereals procured from this year's kharif crop, in January. The monthly offtake from the buffer stocks is 1.1 million tonnes. The buffer is being strengthened in two ways. First the kharif procurement will bring in 4.5 million tonnes, of which 1 million tonnes have already been procured. For the year the wheat procurement target of 6.5 to 7 million tonnes will be attained. Wheat has started flowing into the mandis in Punjab and Haryana at the end of March in large quantities in anticipation of a good rabi wheat harvest, so that the Government can mop up the marketable surplus, at Rs. 78 a quintal, ranging between 20 to 30 per cent of the production. Kharif rice also is flowing into the markets in Tamil Nadu, Andhra Pradesh, Madhya Pradesh, Uttar Pradesh and some 8 lakh tonnes have been procured by the end of January adding to the 20 lakh tonnes in stock. It has been decided to increase the summer rice crop by 1.2 million hectares, making a total of 3 million hectares. Tamil Nadu's share involves a total rice cultivation of 1,00,000 hectares against 43,000 hectares last year. This programme's needs for fertilisers will be met out of the existing quotas allocated to the States while the stocks of suitable seeds and pesticides are adequate to the increase planned. Further if in any area there is scarcity of irrigation water due to power shortage, cultivation of less water consuming crops like bajra, sathi, maize, pulses would be taken up during the summer of 1973. Against this situation, the import of 2 million tonnes of wheat and rice is a wise precautionary move. The US report that we will be importing 5 million tonnes of wheat confuses our overall shortfall in production compared to last year with our import needs. For the present with an import of 2 million tonnes, our stock position will be comfortable.

The January rains in Punjab, U.P. and Haryana might also increase wheat production by anything upto 5,00,000 tonnes. The long range food problem faced by the Country is that by 1990 or shortly thereafter our population will double and we will need to about double our food production from the current 100 million tonnes to 200 million tonnes. This total can be reduced to some extent through the good preservation efforts being developed by BARC through irradiation. This can make available an additional 10 per cent of our food supply, cereals, vegetables. fruits, sea foods and meat, which is now lost through food spoilage and deterioration. The irradiation process is cheap, keeping food prices within the means of the poor, unlike canning and freezing which increase food prices, and preserves the nutritional as well as physical characteristics of the food. The main thrust for the future to about double our food production is to eliminate the deficiencies caused by poor moisture conservation, uneconomic irrigation utilisation and lack of integrated land use. On all these three matters we can move and increase food production by 30 per cent. A proper use of our vast irrigation potential, cropping strategies and crop life saving technologies which we used in times of floods or droughts, particularly the drought resistant

strains, and above all an effective country wide revolutionised dry farming programme can help us attain the goal of doubled food production. We have the technology and the resources. They must now be communicated to the farmer. It is a problem of communication. On the structural side, with the progressive execution of the ceiling legislation and its economic and social advantages, there is also the problem of the increase in the number of small farms and unviable holdings on which a system of joint farming either on the cooperative or collective lines is absolutely essential. Against this imperative, it is regrettable that the cooperatives, on both the production and credit side, are steadily losing ground. Their capacity to take on increased credit responsibility that the growing agricultural production programme calls for is declining. There is a disturbing trend in the very serious growth in overdues to the point that the RBI has appointed a team to study the position of overdues. The overdues have assumed such alarming propositions that cooperatives are not able to absorb the credit placed at their disposal by the RBI. Also the enrolment of new members is very slow. The majority of cultivators are non-members, with little interest in the cooperative, while if they become members, the RBI credit available to the State Cooperative Bank will flow into them. Finally the States also have varying policies of support for the three tier cooperative structure. On all these fronts —that of attracting members from the farming community, of using to the full the credit available to them from the RBI, of liquidating their overdues rapidly and of full support (inculding legislative enactment) from the State Governments to cooperative credit institutions, we need to move firmly and fast. Increased food production, moving the poor farmer and agricultural labourer up in the economic ladder through the package programme which will improve their land, construct irrigation works on a group or individual basis, and develop subsidiary occupations of dairying or poultry—all these demand the regeneration of the cooperatives and it is this which must be undertaken completed before the start of the Fifth Plan.

*Exports:* The discussions and negotiations with U.K. and the ECM for expanded trade continue. With the U.K. the stakes are high. She imports 48 per cent of our tobacco, 37 per cent of our tea, 26 per cent of our woolen carpets, 24 per cent of textiles and 23 per cent of leather and sugar under duty free conditions. This India-UK agreement ends in January 1974 when UK is fully integrated into the ECM. The most urgent action was therefore a continuation of the existing arrangement until 1 January, 1974 during which time a new agreement with ECM can be worked out. Without an interim agreement with UK, India will be losing Rs. 75 crores in textiles, jute, coir, tobacco, cashew and other goods, which is about 40 per cent of India's total exports of Rs. 170 crores in 1970-71. It was thus good that in late January the two governments agreed to extend the Indo-British trade agreement till January 1, 1974. There is also an understanding that the interests of Indian tobacco exports will be kept in mind when the UK harmonises its internal excise duties with those of ECM. Beyond these immediate problems, the UK will be assisting India in its negotiations for wide agreement with ECM. Unlike India's trade with UK, which is favourable, India's trade with other ECM countries is characterised by a large excess of imports from these countries over exports to them. Over the years India has been making a good technical case, and continues to do, for a comprehensive agreement with ECM covering not only jute, textiles, and coil but all

the current and potential export items. It may, therefore, be necessary to supplement the technical negotiations with political understanding and support between the two, as in the end trade matters are settled on political grounds. India's major policy argument is that the loss of British preferences needs to be compensated, and the position of Indian exports to UK which will be worse off than exports from countries making up the European Free Trade Association. India's foreign trade is moving in the direction of a surplus or balance. In the first seven months of the current year, 1972-73, exports have increased by 22 per cent to Rs. 1,070.30 crores and imports have dropped by Rs. 4 crores to Rs. 996 crores. In the first 9 months the increase was 10 per cent. Thus like 4 years ago, the trade deficit could be wiped out or kept below Rs. 100 crores. This is a good achievement, particularly on the imports side at a time when we are having to import steel, fertilisers, cotton, oil and petroleum at rising prices. Despite this favourable foreign trade posture, the foreign exchange resources have declined, as noted earlier due to food imports but also due to the fact that many of our exports are not based on cost transactions but on credit advances by the Country as well as smaller aid receipts. One of the issues in the export trade area, is the demand for equalisation of transport costs and other variable costs as between export firms. This would apply to textiles, where while raw cotton grows mainly in Maharashtra, Gujarat and Punjab, the textile mills in West Bengal, Andhra Pradesh and Tamil Nadu have to import raw material from these States and face high transport costs. The same applies to coal and iron ores. The Government has appointed a committee to examine the financial and policy implication of this proposal and its effects on the export trade. Reports show that the export earnings from pure silk goods show an increase of 8 per cent for 1972 over 1971 at Rs. 760.32 lakhs. The major part of the rise was due to the Tasar export improvement, while mulberry silk goods exports remained stable. This fall in this part of the Country's silk exports suggests the need for a floor price for cocoons, an increased export incentive and exemption from excise duty. Mysore is particularly involved in the silk trade. Another export item which shows an increase is marine products which in the first 8 months of 1972 stood at Rs. 40 crores which was a 60 per cent increase over the previous year's exports. A series of export agreements have been concluded mainly with the East European Countries. With Poland a comprehensive agreement involves the export of 3,000 railway wagons at a cost of Rs. 35 crores, and a Rs. 220 lakh order for machine tools from HMT. The long drawn out Yugoslav order for 3,600 wagons valued at Rs. 38 crores (see Vol. III page 21 of the Bulletin) has now been given an extension of 8½ months for delivery of the wagons in place of an increase in price, to compensate the three private firms—Jessop, Texmaco and Braithwaites for the rise in costs which have taken place since the orders were placed with them. India and Hungary have concluded an agreement in January under which India will increase its exports in coffee, iron ore, spices, cotton and jute and in return will receive telecommunication equipment, steel products, chemical industrial goods, etc. An agreement with Czechoslovakia is being developed carrying a wide range of industrial and agricultural goods and services. Of particular interest to India is the import of power generators and components and equipment for metallurgical industry from Czechoslovakia. This expansion of trade with the Socialist countries is important in relation to the production of non-essential goods during the Fifth Plan and their disposal. Exports of such goods to the Socialist countries

would certainly be a way of reducing their internal consumption. India and Sudan have also concluded an agreement of trade in £50 million worth of goods, including the import of 3,00,000 cotton bales from Sudan and Sudan imports of Indian machinery and jute.

*Aid:* The debt relief for 1972-73 has been finally settled. Against the World Bank recommendations of $200 million, (see Vol. II No. 8 page 14 of the Bulletin), the Aid India Consortium has decided to extend a relief of $150 million which is Rs. 130 crores. This also sets the pattern for the debt relief that will be available to the Country for next year. Japan and India have signed an agreement for a 12th yen credit of Rs. 37.74 crores for commodity and project loans and the remaining Rs. 28.26 crores as debt relief. The World Bank—IDA—has approved a credit of $25 million (Rs. 18 crores) as a contribution to the large programme of $42 million being used to meet the foreign exchange needs of the small industry sector. The Bank's earlier loan of Rs. 25 crores for agricultural projects (see Vol. II No. 11 page 16 of the Bulletin) is still being disbursed very slowly. To date only Rs. 1 crore have been expended. The project is aimed at making agricultural development a bankable subject. The Agricultural Refinance Corporation is pushing ahead with its programme with special emphasis on financing irrigation projects in this backward area. The Australian Government has offered to assist the country's agriculture by establishing a dairy cattle breeding farm, a subsidiary farm, and a semen production centre in supplement to its ongoing cooperative programme.

## International

*Bangla Desh :* Following the UN assessment of the relief needs of Bangla Desh reported in Vol. II No. 12 page 21 of the Bulletin, a World Bank/IDA assessment of the rehabilitation needs of the Country estimates that $950 million will be required till June 1973, including $300 million for food imports. The balance is the cost of rehabilitating the infrastructure, health services, education, industry and $400 for imports. The Government has an annual plan for 1972-73 aimed at restoring the Country to its pre-1970 levels. Now work is under way on a medium term plan where the major objectives, strategy and policies as well as programmes and projects are being elaborated. For instance, the industrial policy is now being worked upon, parts of which have been announced as including no nationalisation for 10 years of industrial units with a capital of Rs. 25 lakhs and over. Each firm will enjoy a *moratorium* against nationalisation for 10 years after it has gone into production. Under an agreement signed in early January, India will help Bangla Desh build a nuclear power station. The power grids of the two countries are being linked immediately, with India drawing 10 to 15 MW from East Bangla Desh for Tripura and Mizoram in exchange for the same quantity that will be fed into the western grid of Bangla Desh. These two programmes are part of the effort to increase the power generation and resources of the two countries. The power programme is placed under a joint power coordination board.

*World Economic Survey 1971 :* As referred to in Vol. II No. 9 pages 15 and 16 of the Bulletin the UN 1971 survey (which should be compared with the World Bank survey reported on page 19 of Vol. II No. 11 of the Bulletin) reports a rather dull year with the rate of growth at 4 per cent instead of the 5.3 per cent foreseen in the Second Decade decisions, with the developed market economies registering a 3.4 per cent rate of growth and having to take

special measures to ward off a recession, while the developing countries growth rate was 5.4 per cent. One result was a start on narrowing of the gap between the developed and developing countries. The centrally planned economies in Europe who are isolated from the world economy had a 6.4 per cent rate of growth. In China the growth rate was 10 per cent. World trade increased by 6 per cent. The fast growth of the dollar value of world trade (11 per cent) reflected increases in world prices, with the terms being unfavourable for the developing countries. Prices of manufactures rose by 6 per cent, while those of primary commodities rose by 5 per cent. Another study forecasts that world trade will surpass $430 billion in 1973. It projects an increase of 8 or 9 per cent in 1973, with the US whose share accounts for 13 per cent of world exports will have a trade deficit, the third straight one in 1973. The great event in 1971, the UN report points out, was the international monetary crisis, the passing of the old monetary system and the choice between a world broken into self contained trade blocks and a truly interdependent world. The UN report expresses the fear that the progress on the international monetary front will not be matched by commensurate progress on the trade front and pleads for use of the most favoured nation principle (MFN), which is being eroded by regional groupings and the scaling down of the pervasive non-tariff restrictions that are becoming increasingly serious. There is growing a new concern and priority for social objectives and the quality of life in development programmes and policies. It is improvement, however, that this pre-occupation with domestic matters of overriding importance should not lead to neglect of the role of each country in the international framework.

*World Monetary Reform :* The pace of monetary reform is particularly slow at this time. But three developments are important pointers or foundations for further advances. First gold is slowly taking a back seat in matters of international liquidity. The enlarged Common Market agreed in mid January not to use gold in settlement of their accounts. The immediate cause for this rather far reaching decision is the growing gap between the official price of gold ($38 per ounce) and the free market price which is nearly double that at over $70. A second development is the Common Market counter proposition to the US proposal that a country's foreign exchange reserves should be an indicator as to whether there should be devaluation or revaluation (see Vol. II No. 1 page 26 of the Bulletin). Under the US proposal there would be certain points in the reserves of accounting that would trigger devaluations or revaluations, which if not acted upon would lead to economic sanctions on the country. Thus a low point for each country would be established and if reserves fell below that point, the currency must be devalued or the country be refused credit or lose SDR allocation as the sanction. At another point, the lower warning point, which would be midway between the low point and the base level for reserves, the country can devaluate freely. Similarly there would be an upper working points for reserves which when reached should lead to an adjustment. This is a simple and clear proposal for a stable yet flexible monetary arrangement. The Common Market response, however, is that there should be multiple indicators to determine when a country's currency should change its exchange value. There should be further work on this alternative because as presented it looks like a debating point. This debate is within the rich man's club but is of general interest in so far as exchange rates need to be stable

for the growth of world trade. Such growth could however be held back if the rules of the game rigidify the rates. The third development was the establishment of the statutes by the Common Market of the European Monetary Fund referred to in Vol. II No. 11 pages 20 and 21 of the Bulletin. The primary task of the Fund is to organise multi lateral settlements between its members and manage their short term mutual financial support mechanisms that are already in operation. More generally the Fund's operation will lead to a progressive narrowing of exchange rate margins and will help the Common Market to develop coordinated reserve policies. In fact the Fund is the start of a common market central bank and can help in the move for monetary reform, if it does not become an instrument of an inward looking Community.

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## II. Agricultural Development

**Paddy :**

Kuruvai paddy stocks are still unsold with the farmers in Thanjavur district. As a consequence some of the paddy has been spoiled and become sub-standard because of the rains, poor storage and bad handling. At a time when the Country faces serious shortages in food grain production, this wastage of paddy must be prevented by opening purchase centres, both State and Union, and by teaching the farmers scientific methods of storage and handlings. Samba paddy covering 7.5 lakh acres and Thaladi covering 4 lakh acres face serious marketing problems. Samba yields have been between 1.75 tonnes to 2.25 tonnes per acre. Samba and Thaladi are expected to yield 12 lakh tonnes of paddy. In mid January reports of distress sales in the district indicate sales at Rs. 25 per 50 kilo bag against the controlled price of Rs. 30 at Mayuram. The opening of more purchase centres and the building of roads to these centres can help in opening up markets to the farmers. To further help in this situation on January 20, the Government has introduced a uniform 20 per cent levy for procurement on stocks of paddy and rice purchased by dealers in the districts of Thanjavur, Tiruchi, South Arcot, North Arcot, Chingleput, Coimbatore, Kanyakumari and Tirunelveli plus Periakulam and Uthamapalayam taluks in Madurai district. The Government already has a buffer stock of 90,000 tonnes of rice and the levy will enable it to build its stock further to target, help prevent a fall in the price of rice and ensure that the consumers obtain rice at a reasonable price. The 25 per cent levy in Thanjavur was withdrawn in September last year just before the Kuruvai harvest at the request of the farmers (see Vol. II No. 10 page 18 of the Bulletin). The procurement rates in operation are Rs. 47 for coarse variety, Rs. 51 for medium, Rs. 54 for fine and Rs. 56 for superfine varieties. These measures, it is hoped, will help the farmers in Thanjavur and provide a market for the inflow of plentiful ADT-8, ADT-26, IR-8 and Ponni harvests. The Navrai crash programme in the districts of Chingleput, North Arcot and South

Arcot referred to in the last issue of the Bulletin (page 106) cover 5 lakh acres. Using the plentiful water available in tanks and reservoirs, paddy seedlings have been transplanted in 1.97 lakh acres in Chingleput district, 1.83 lakh acres in North Arcot and 1.02 lakh acres in South Arcot (the lag in this district being due to the floods). With the help of Rs. 1 crore aid from the Union Government, loans have been given to farmers for buying HYV seeds of which there is sufficient supply and fertilisers which are in short supply in the State and the Country. It is expected that the Navrai acreage might be extended by 10 per cent due to the plentiful water supply and the push being given to the rabi crop. 7 lakh tonnes of rice will come out of this effort including 1.5 lakh tonnes due to HYV yields.

The current year's food grains production is expected to be 73 lakh tonnes including 54 lakh tonnes of rice. The State has the highest rice production record of 1974 kilos per acre, including triple cropping. Similar stress is being laid on HYV with the accompanying fertiliser application and plant protection measures for millets, ragi, cholam and cumbu which will cover 4.17 lakh acres in 6 districts—Coimbatore, Dharmapuri, Salem, Tirunelveli, Madurai and Tiruchi. The HYVs here meet with some resistance from the farmers because (a) the seeds are costly and have to be specially produced for every crop and (b) they, particularly cumbu, are susceptible to pests. Thus the new Swarna varieties released and used extensively in our neighbouring State—Andhra Pradesh—should also be popularised in this State. Further hybrid varieties for the kharif season of 115 to 120 days duration, with 4,000 to 6,000 kg. of grain and 18,000 to 20,000 kg. of fodder per acre and similar varieties for rabi plantings are now available and should be spread widely in the State. They overcome both the cost and disease prone elements. The Tamil Nadu Agricultural University has released CO 10 ragi which is of 80 days duration, 1,600 kg. grain yield and 3,200 kg. of fodder yield. The State's serious deficit in pulses has been analysed in Vol. I No. 5 page 1, No. 8 page 3, No. 9 page 8, Vol. II No. 3 page 8 of the Bulletin. We produce 1.2 lakh tonnes and consume 8 lakh tonnes. In South Arcot and Thanjavur we have a Rs. 2 crore 23 lakh acres Intensive Pulses Development programme in operation. In addition the Government has announced a revolving fund of Rs. 4 crores for the purchase of quality pulse seeds to distribute them in time to the farmers at reasonable prices. There are 6 proven varieties of pulses for dry cultivation which should be widely available to the farmers. They are (a) red gram CO 1 which yields 1,600 kg. per hectare when grown as a pure crop and 500 kg. when grown as a mixed crop with ground nut: (b) red gram SA with a 6 month duration and yield of 750 kg. and 250 kg. when grown as a pure or mixed crop: (c) blackgram CO 1 with 100 day maturity and yield of 750 kg. (d) green gram CO 1 with 135 days duration and yielding 625 kg. (e) Rajendran—a green gram variety with 65 days duration and 625 kg. yield (f) Bengal gram CO 1 of 100 days duration and 800 kg. yield, (g) Horse gram CO 1 with 110 day and 800 kg. yield (h) cow pea CO 1 with 100 days and 550 kg. (i) Avarai CO 2, CO 3, CO 4, CO 5, with 150 days and 6,000-13,000 kg. yield, (j) Mochai DC 231 with 180 days with yield of 700 kg. as pure and 350 kg. per hectare as mixed crop. There are similar varieties of pulses for irrigated cultivation—Blackgram ADTI, green gram ADTI, Mochai, and Avarai CO 1, CO 6, CO 7, CO 8 and cow pea EC 455. This sector of the extension programme must be watched this year in order to derive the necessary lessons and reach the target of reducing our import of

*pulses* by 50 *per cent* by the end of the Fifth Plan.

## Chengam Farm:

Further to the report on the successful functioning of the State Farm project at Chengam analysed in the last issue of the Bulletin (page 106), the loss from the floods which was at one stage estimated at Rs. 10 lakhs has, through measures taken to cultivate intensively groundnut, cotton, sunflower and the pulses, been reduced to Rs. 3 lakhs. This is one farm which is well ahead of its target production and with the construction of 200 deep wells on the farm, it will be producing by 1975 what was planned for by 1980. Chengam is one of the 11 Union Government farms aimed at increasing agricultural production, introducing innovations of various kinds particularly in dry farming, and helping the spread of multi and mixed farming. The Chengam farm is a model in this regard.

## Recent research results:

The importance of protecting crops from disease is emphasised in all research findings using for this purpose insect parasite viruses which are fatal to crop pests, micro organisms such as bacteria, fungi, protozoa and biochemicals (see Vol. II No. 12 pages 41-48), using chemical pesticides only when necessary. How far this is being done in our country and State is a matter on which research should be undertaken with a view to using the non-chemical agents to the maximum. The IRRI, Philippines reports that there are 1,00,000 varieties of rice in the world and that it has in its germ plasm bank 12,000 varieties of paddy, most of which are not in use, but many of which are used to produce the high yielding and disease resisting varieties such as IR-20 which is a progeny of the now extinct TKM-6. Our agricultural university has released a new paddy strain. Bhavani. for both wet and dry farming, high yielding (6,895 kg. per hectare), blight blast and lodging resistant, and of good growth quality. Similarly the twin tests of successful research are quantitative increase in production and increase in farmer's income. Sugar cane research has met both tests, having increased production from 62.5 tonnes per hectare in 1926 to 300 tonnes per hectare today and raised farmer's income and State income very rapidly. The number of varieties CO 419, CO 907, CO a-71-1 and 70 are increasing, the increase of production by deep application of fertilisers are all to the credit of cane research. The State's perspective plan includes the development of vegetables, fruits and flowers in all the seven hill areas of the State over the 12 year period. The plan will result in the production of fruits in about 40,000 hectares, vegetables in about 10,000 hectares, spices in 17,500 hectares, flower crops in 1,000 hectares producing 5.5 lakh tonnes of fruits, 2.5 lakh tonnes of vegetables, 0.9 lakh tonnes of flowers, adding an additional annual income of Rs. 0.5 crores. The four major fruit plants —citrus, banana, pine apple and papaya— need research on mass propagation methods, cultural operation, package practices and storage and processing of fruits. The Country with a production of over 3 million tonnes of bananas of 140 varieties, and 4 commercial varieties, dwarf, robusta, poovan, rasthali, ranks second among banana producing countries. It has yet to enter the export market—except for the 10,000 tonnes exported to the Gulf States. Here the Union Government scheme to develop 16,000 hectares of new land for banana exports is of direct interest to the banana growers in this State. In this context, research is needed on control of the bunchy top disease. Further recent research indicates the desirability of mass growing of the new

mandarin variety—Kinnow—which is finding a growing export market in Singapore, Malaysia and Indonesia, the increase in the pine apple population from 20,000 suckers and 20 tonnes per hectare to 60,000 suckers and 100 tonnes per hectare and more intensive cultivation of the combined papaya fruit CO 1 and CO 2. Vegetable gardening research has thrown up some interesting findings for areas where the water is both limited and saline—which is common in suburban areas. And yet these are the areas which can grow vegetables and which need to grow them. Here again research shows that vendai of the Pusa sawani variety, water melon and H 4 brinjal, HS 101 tomato, spinach, and radish can be grown under dry and saline farming conditions. One general problem is the means of ensuring that these research results reach the farmers—many of whom are illiterate and all of whom are in need of help and advice on their own terms. Here there is need for a combined study, research, demonstration and experiment to see how and in what ways agricultural information can flow smoothly from the laboratory and researcher to the farmers. Here the waiving of license fees for TV and radio and providing the sets at low prices to the farmers must take precedence in the Fifth Plan. In this area the Tamil Nadu Agricultural University which runs a good Farm Advisory Council at Coimbatore and Madurai visiting 10 times selected farmers should also develop out stations where there will be available a team of specialists in plant protection, soils, farm management, horticultural engineering and animal and veterinary science in a single hall so that the farmer is guided smoothly and informed speedily about whatever he needs. This kind of package of farm information needs to be developed on a long, large and continuing scale.



**Farm mechanisation :**

Use of machines—tractors and tools—in farming is not an either or proposition for us in the State and the Country. Mechanisation of the order of USA and Canada is not possible without creating unemployment problems. But there is scope of more machinery as comparative figures with China and Japan show. Our average holding is 2.62 hectares, whereas it is 1.11 hectares in China and 2.62 hectares in Japan. The manpower utilised in India is 0.09 h.p. per hectare as against 0.195 h.p. in China and 0.216 h.p. in Japan, the animal power used is 0.2 h.p. in India, 0.16 h.p. in China and 0.12 h.p. in Japan, and the mechanical power is 0.008 h.p. in India, 0.146 h.p. in China and 3.5 h.p. in Japan. The scope for mechanisation is shown in the comparative situation of Japan and China and this Country. In Japan 25 persons work on one hectare and produce 961 kg., while in India 8 persons work on one hectare and produce 100 kg. Low cost, labour saving power operated tillers and other tools which can be used by the dry farmer to save rain water, operate quickly after the rains and undertake timely weeding operations can increase the productivity of our farming and farm labour. This applies equally and perhaps even more to irrigated areas which are facing problems of labour scarcity at the harvesting season. The rising cost of labour is now raising the same prospect for substituting machines for men in the industrial area.

*Tea, coffee and rubber :* For the first 11 months of 1972, world tea production was higher by 50 million kg. at 765.6 million kg., and while India shared in this rise, South Indian production declined as pointed out in the last issue of the Bulletin (page 110). The Country's exports rose by 11 million kg. at 190 million kg. during the eleven month period, though the unit

value was lower by 3 paise at Rs. 7.57 per kg. The long term trend in the tea industry is however disturbing. Its stock accumulation continues and its profitability is declining. Its accumulation of stocks is due to its production increasing at the rate of 2.9 per cent, while its consumption—internal and international—is lower. Internally tea consumption is more income elastic than price elastic. With a slow rise in per capita incomes, the demand for tea has been equally sluggish. Internationally the consumption increase of the importing countries has increased only at 1 per cent. On the profitability side, the gross profits of the industry declined from Rs. 6.5 crores to Rs. 5.5 crores during the Third Plan and net fixed asset formation from 5.7 per cent to 4.9 per cent, due to our production increase being about half that of other countries, our prices being higher, our labour costs increasing compared to Africa and China, and a rather heavy tax burden which increased from 110.68 paise in 1960 to 175.68 paise in 1969. We also have the special problem of small plantations (vide Vol. III No. 1 page 32 of the Bulletin) with their low production and high costs. Future action to improve the tea industry has to be on several fronts,—export production, replantation and replacement of old tea bushes, improved productivity and profitability and some reduction in export taxes.

Coffee and rubber estimates are unchanged. 87,000 tonnes of coffee is expected of the current season crop. For the first ten months of 1972, rubber output was 82,615 tonnes plus 65,353 tonnes in carry over stocks, which allows for a consumption of 1.48 lakh tonnes.

*Dairy farming:* The economics of dairy farming in the State leads to important programmes of action. The price of milk in Madras and the State is double that of milk in Paris and France. In Paris it is 45 centimes (67 paise) per litre, in Madras it is 1 Rupee 30 paise per litre. And yet the producer's — the dairy farmer's—costs are 80-90 per cent of the price leaving him a very low profit margin. Since there is little chance of increasing the price of milk any further (given the income elasticity of demand for milk), efforts must be made to reduce production costs. One effective way to bring down costs is through a well planned quality fodder programme which can supply all the nutrients and bring feed costs down to 30 per cent of the total dairy costs. This will bring the overall costs down to 70 per cent and increase the dairy farmer's profit margin. As pointed out in the last issue of the Bulletin (page 111) dairy farming in the State must concentrate not only on the quality of the animal but equally on the quality of the fodder. The Intensive Cattle Development programme (ICDP) and Dairy Development boards should distribute fodder plants and seeds to the farmers and educate them in its production and use as one means of increasing their incomes.

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# III. Industrial Development

## Textiles:

The textile mills in the State have functioned well in 1972 with a parity between cotton prices and the finished product. Raw cotton is the only cash crop which has had low prices in 1972, enabling a reduction in cotton imports, an expansion in exports and some reduction in textile prices. The State's production in 1973 will continue to increase as the supply of cotton is adequate and comfortable. However, the effect of the increased power cut which came into effect in February will lead to some reduction in production and lay off in labour. In Coimbatore a modern high speed automatic looms textile mills at a cost of Rs. 4 crores is being set up with Swiss collaboration. It will increase production by 30 per cent. On an all India basis there are contradictory positions being taken on the supply position of controlled cloth. On the one hand the National Cooperative Consumers Federation complains about the limited supply of controlled cloth and on the other hand the mills are appealing to the Government to lift accumulating stocks of such cloth and so relieve them of the financial tie-ups involved. There is truth on both sides as the distribution mechanism for controlled cloth is still not in place—vide the permission granted by the textile commissioner to increase sales of controlled cloth from 10 to 20 per cent by retail outlets of the mills. There is need to increase and improve the distribution network for coarse cloth as part of the distribution of essential goods. The secular trends in textile consumption in the State and the Country, however, show a per capita reduction over the last 10 years (from 15.86 metres to 15.26 metres) which is due to low demand elasticity for cotton textiles and a growing preference for synthetic fabrics. For the Fifth Plan, the State perspective plan estimates a small increase in per capita consumption.

## Handloom:

The internal problems of the handloom industry remain serious as analysed in the last issue of the Bulletin (page 115) and previous issues and await the report of the State Committee for effective action. Meanwhile as also noted then, the exports of handlooms for the first eight months, April-December 1972, show a sizeable 15 per cent increase at Rs. 20.5 crores, so that for the year exports may reach Rs. 35 crores Ready made garments are in highest demand followed by cotton garments. Handlooms are in growing demand in UK, US, Sweden Norway, France, West Germany and in newly opening up areas of Australia, Japan and Bangla Desh.

## Small Industry:

The pump industry is heavily concentrated in Coimbatore for the State and the Country. In fact, Coimbatore produces 50 per cent of the pumps and 35 per cent of the electric motors made in India. The problem that the small units, of which there are 200 producing motor pumpsets and 2,500 in toto in the district, face is: that of under utilisation of their capacity, their not producing anything for five or six months in the year. To meet this problem of under utilisation, it is necessary first to diversify their production by manufacturing 60 new items of components recommended by the Singh Committee. Detailed project reports are being drawn up on these lines for financing by the Union Government. A second action is the development of a centralised marketing agency in order to widen the market and meet the demand for their products on a

rational and non-duplicating basis. Other programmes include moving to backward areas in the district and State, encouraging new entrepreneurs and young technicians and developing further ancillary facilities for the growing electronic and textile industries in the district and the State. A similar situation emerges from surveys conducted by the Indian Institute of Public Opinion Research and the SISI under the auspices of the State Planning Commission of the small industries potential of the Dharmapuri district—which is one of the two most backward districts in the State and in that sense not comparable with Coimbatore. There are for Dharmapuri small industries two poles of attraction — Bangalore and its industrial undertaking and Salem and its steel plant. Both are possible. Hosur could develop small units to cater to Bangalore industries (40 kms. away). For the Salem Steel, 35 small scale industries as ancillaries could be developed. Twelve major and medium industries are recommended which include a sugar factory at Palacode, silk spinning and weaving at Hosur, solvent extraction plants 50 tonnes per day capacity at Kaveripattanam and 20 tonnes per day at Barugur, milk processing plant at Hosur, Ragi malt factory at Denkonikottah, fruit canning and can making plant at Krishnagiri, brick and tiles at Hosur, furniture at Dharmapuri, stone cutting and polishing in Kodipalli, 2 metal fabrication units at Krishnagiri and Dharmapuri, a scooter assembly complex at Krishnagiri and an agricultural tillers factory at Dharmapuri.

## Electronics and TVS:

The State is planning to establish duty free electronic zone at Adyar near the Airport. The functional industrial estate for electronics instrumentation being set up at the CSIR complex in Adyar (see Vol. II No. 6 page 26) has completed its first phase with entrepreneurs at work in 18 sheds, and is now finishing its full complement of 45 sheds plus a testing, product development and certification laboratory. It provides a good basis for a free zone. The State has the resources and skills for making sophisticated electronic items both as original equipment and as ancillaries for ITI, BEL, and ECI. In contrast to the small amount of current production, the electronic industry in the State can now plan to skip the stage of producing components and materials which tend to become obsolete and go on to producing items which will be in future demand. The electronics industries in the Country will need a capital investment by Rs. 1,650 crores by 1975-76. The All India turnover for 1975 is estimated at Rs. 28 crores for primary materials and Rs. 64 crores for electronic resistors, capacitors, semiconductor devices, etc. and this State is planning to produce 8 per cent of this turnover. One important infrastructural unit in the electronic industry is the ceramic complex in Vridhachalam which is the electronic ceramics centre for the Country. Thus though the State is a late starter, it can now take its place in the rapid electronic development of the Country.

TVS automobile ancillaries in Madras are planning a 50 per cent expansion of production. Rs. 1.25 crores is to be spent on developing a brake lining unit including railway brake organic linings, with a capacity of 1,500 tonnes per annum. There is here a vast potential as the gap in the brake linings and clutch facings, will be 2,000 tonnes by 1976 and 5,000 tonnes by 1980. The new project will contribute 12 per cent of the Country's total production. Wheels India is also to be expanded from its present capacity of 3.20 lakh wheels to 7.50 lakh wheels, including the usual stipulation that 10 per

cent must be exported. Similar increases are being planned for Brakes India (from 80,0(0 to 96,000 vehicle sets), Lucas-TVS for a 50 per cent increase and Sundaram Fasteners to increase from 500 tonnes to 2,400 tonnes. These expansions call for more capital and skilled labour.

## Leather :

The issues that led to work stoppage and a long hartal call in the leather industry were analysed in the last issue of the Bulletin (page 116). Fortunately negotiations between the Government and the trade interests led during January to an understanding resulting in a slow return to normalcy. Members of the Madras Hides and Skins Merchants Association, began to effect purchases of raw skins and hides and prices came back to normal. There have been some delays in establishing procedures for the export of leather goods pending the creation of the new body agreed upon. And that is the major achievement by the Union Government (Ministry of Foreign Trade) on the one side and the Development Council for leather and leather goods, the Leather Export Promotion Council, the Bengal Tanners and Shippers Association and the Southern India Skin and Hide Merchants Association on the other. The Government conceded that the canalisation of the export trade will not be through the STC. The trade had stated that it was not opposed to canalisation but to STC which was itself an exporter of semi-processed hides and skins being the agent. Now the agreement is to set up a Leather Industries Development and Export Authority (LIDEA) which will lead the development and export of leather along lines of the Seetharamiah Committee report which aims at restructuring the export of raw and semi-processed leather and increasing the finishing of leather in India, without dislocating exports in the immediate future or affecting the small tanneries. The Committee recommends an export duty of 10 per cent or more on exports of EI tanned and chrome tanned hides and under a quota system. LIDEA will be governed by a 31 member Board of Directors with an executive director, representatives of the Union Ministries of Foreign Trade, Industrial Development, Planning and Finance, the Development Commissioner of small scale industries, DCTD, CSIR, CCIE, East India Tanners, West blue chrome tanners, finished leather tanners, industrial leather tanners, the foot wear industry, the leather goods industry, animal by-products trade, workers, consumers and exporters. Its main functions as a development agency will be to establish finishing and service centres, promote consortia of tanners, make available machinery and raw materials, promote modern leather auxiliaries, employ technicians and designers for achieving break throughs and set up modern slaughter houses. It will collect a cess from the trade and industry on the basis of production and exports and will use the proceeds and government grant for the development programme outlined above. It will work the canalisation of exports by registering all the contracts for export of semi-processed material and ensure a fair and reasonable return to the primary producer and the farmer. Pending the legal constitution and functioning of LIDEA, the canalisation which was at the root of the whole disagreement and cause for disruption will be effected through CCIE and LEPC in Madras and Kanpur. Now this important sector of our industry and trade should return to normal functioning and the Government should speed the issue of instructions and guidelines for the purpose.

**Madras Port :**

At the end of January, the new oil berth in the Madras harbour was inaugurated (see Vol. II No. 3 page 12), sometime ahead of schedule. Adjacent to the main harbour, the Bharathi docks have been constructed to meet the immediate needs of oil and ore and provide 3 additional berths. The oil berth in the dock can now accommodate 77,000 dwt tankers going on to 1,00,000 dwt tankers later. It is provided with massive loading arms and can handle crude at 4,000 tonnes per hour and refined at 700 tonnes per hour. It now receives the giant 88,000 dwt tanker Jawaharlal Nehru with feed stock for the Madras Refinery. The ship and its sister ship, Lal Bahadur Shastri, are now shuttling between the Gulf States and Madras bringing in crude supplies. Madras is the only harbour which can receive these giant tankers. The other facility being developed at the port is for mechanised ore handling which will be completed at the end of 1974 and go into use early in 1975. At present the port is handling 2.3 million tonnes of iron ore, using semi-mechanised operations and 35,000 dwt ships. In view of the vast scope for iron ore exports and the serious bottlenecks discussed earlier (pages 172 & 173), facilities for 70,000 dwt ore carriers and later 1,00,000 dwt with facilities for receiving by rail, stock piling, reclaiming, weighing, sampling and ship loading upto 5 million tonnes will be developed. For the present, new cranes and pay loaders have been installed in the Jawahar docks to increase iron ore handling from 2 million tonnes to 3 million tonnes, which is 15,000 tonnes a day. The completely mechanised ore berths with a capacity of 6,000 tonnes an hour will be ready to go into operation in 1975. In addition a fisheries harbour north of the Bharathi dock is being constructed to accommodate 50 trawlers, 500 mechanised boats to start with plus 150 trawlers and 500 boats later. The harbour can handle 40,000 tonnes of fish in the first stage and 80,000 tonnes in the second stage—also to be completed by 1975. Further developments include building 3 additional deep drafted berths for handling bulk cargo such as coal, fertilisers, etc, container cargo and general cargo. Container berths are now being set up in Calcutta, Bombay, Cochin and Madras, should develop a similar facility. These developments will make the economics of the port more attractive. Its 1971-72 receipts was Rs. 78.17 lakhs over the previous years. Some new items of export are quinine salts and manganese which are likely to increase at the rate of 1,000 kg. a month, and mango juice which was about 1,200 tonnes valued at Rs. 1.2 lakhs. In general, however, the expenditures were larger than the income, the traffic handled and exports and imports were smaller. This trend will now be reversed as the port will be handling a much larger quantum of trade. This also assumes a certain degree of industrial peace. The dock strike in January involving 4.000 workers on the piece rate dispute slowed down the functioning of the harbour. This kind of dispute must be anticipated and provided for.

**Madras Refineries :**

Further to the good year (1972) of Madras Refineries reported in the last issue of the Bulletin (page 117), the new oil jetty at the Madras harbour just referred to will increase the through put and all petroleum products even more markedly in 1973. The most serious bottleneck continues to be cooking gas. Liquified petroleum gas production was 20,000 tonnes, which was double the design capacity and that of 1971. IOC is not clearing the filled cylinders rapidly. At the end of January it was reported that 15,000 filled

cylinders remain to be lifted, and the whole distribution system seems to have broken down. The result is that the refinery is burning part of the gas because of lack of storage space. Heie is a clear case of inefficiency and wastage, which IOC should immediately set right.

## Kalpakkam

The nuclear power plant, it is estimated, will be ready by 1976 if the Indian components and equipments are delivered on schedule. The reactor will provide 42 to 52 MW heat energy and with the steam turbine 15 to 16 MW electrical power. The fast breeder test reactor costs Rs. 34.85 crores, with only Rs. 7.4 crores for imported parts from France, and the turbo generator for the reactor is supplied by Bharat Heavy Electricals (see Vol. II No. 4 page 17). The test reactor will provide experience in the design, construction and operation of plutonium-fuelled sodium – cooled fast reactor and will be of use in other Stations being planned for the Sixth Plan.

## Private sector reports

The annual report of Cauvery Sugars and Chemicals shows both higher profits and higher costs. The turn over at 30 June 1972 increased from Rs. 256.56 lakhs of the previous year to Rs. 387.35 lakhs and the net trading profits from 8.19 lakhs to Rs. 33.24 lakhs. The production record, however, showed a decline from 2,11,248 tonnes crushed and 17,851 tonnes sugar produced at an average recovery of 8.45 per cent in the previous year to 1,54,530 tonnes, 13,516 tonnes and a recovery rate of 8.75 per cent, mainly because the quantity of cane received was lower. For this year the factory expects to crush 2 lakh tonnes. The cane price established by the Government for 1971-72 was Rs. 85 per tonne and for this year will be Rs. 86 50, which is Rs. 13.80 per tonne more than the price of 1971-72. The company has ordered machinery for its first stage expansion of the factory to 1,250 tonnes per day and will produce this by early 1974. The annual report of Kothari Sugars and Chemicals registers a good production record, with a recovery of 10.04 per cent, (the second highest in the State), working for 131 days in crushing 1.7 lakh tonnes of cane and producing 1.71 quintals of sugar. The cane price paid for the year reported was Rs. 85 and for this year will be Rs. 95. The higher recovery is due to switching from CO 419 (the conventional) to CO 658 (a highly sugared variety) and properly blending them. For the present year the company expects to crush 2 lakh tonnes at a recovery of 10 per cent and also to increase the area under cane cultivation. The Kaltur unit will be expanding its crushing capacity from 1,500 TCD to 4,000 TCD at a cost of Rs. 2.5 crores phased over 5 years to 1976-77 and a new factory established at Siruguppa starting with crushing 1.5 lakh tonnes at 10.5 per cent recovery going on to 3 lakhs at a recovery of 11 per cent next year and on to 4.5 lakh tonnes and 6 lakh tonnes in 1975-76 and 1976-77. The company also reports that the CM Kothari Trust has donated Rs. 10 lakhs to the Institute of Financial Management and Research in Madras, which with Rs. 20 lakhs from ICICI and Rs. 35 lakhs from 140 industrial establishments is engaged in middle level financial management training. The trust has also made a grant of Rs. 15 lakhs to start a sandwich model polytechnic. The report shows that the company's programme is being geared to meet the growth targets of the Country's sugar needs.

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# IV. Education Science & Health

## Educational reform :

The Educational reform movement during January concentrated on bases, methods and media, and evaluation. The Prime Minister, the Vice President of the Republic, the retiring UGC chairman, and the Union Minister of Education all stress the growing consensus in the Country that education must be linked "with life of the community", (Mrs. Gandhi), must serve "the national purpose" (Mr. Pathak), must be "the potent instrument of national development and social development" (Mr. D. S. Kothari), and must "be quickly absorbed in the economy" (Mr. Hasan). There is general agreement that education today is not so oriented – "one of the mistakes committed at the time of achievement of freedom was that we had not thoroughly overhauled the educational system and structure" (Mrs. Gandhi): "even after 25 years of freedom we have still many of the old ills holding back progress and development. We find parochialism, casteism, violence, intolerance and indiscipline" – (Mr. Pathak). "Even after 25 years of independence the subject which topped the list of optional subjects —is European History, followed by Indian History and British History" (Mr. D. S. Kothari). And so it is now agreed upon all sides that there must be educational reform, "drastic changes" or restructuration calling for a much higher priority for it in the national scheme of things and for sustained effort and support. And that is the stage we are at. We have reached agreement on the need for reform, we have also reached agreement on the substance and direction of the reform and now we have to spend the energy, time and money to implement it, in every State, in every university and in every institution. The basis is the reality that education is a learning process that takes place continuously all one's life, into which the school system must fit, and of which spreading literacy among the masses is only one small part, as the Minister of Education of this State pointed out when inaugurating the National Service Corps Adult Education Training camp. This involves making education at all levels work based, linking together education, productivity and research, regulating the expenditures of formal schooling and universities so that the minimum work based education for all, vocationalised training at higher levels both in school and college and outside to meet the demand for the skilled persons needed by society and the opportunity to continue one's education and training all one's life are provided. One consequence on which there is general agreement is the need to expand expenditures on primary education both in school and out of school and adult education and to restrict the rush to higher education in institutions while throwing open opportunities for such education for those who are at work. This is the framework of educational reform on which all State Fifth Plans must be based and on which advance action must be taken now in teacher training, methods and media. On teacher training, there is need for in service training to help teachers to teach the 11 years curriculum in 10 years, to switch over to work based teaching, to learn simple modern techniques of teaching, and to learn to work with the growing number of para educational auxiliaries, doctors, lawyers, managers, accountants, etc , who are willing to share in the teaching load and bring to it relevance and fitness. In fact the Bombay University now demands all college teachers to learn how to teach, so that teachers can really teach. In this connection this State's programme under which 2,500 worker–teachers were trained,

in the last decade, in 3 month courses and who in turn had trained about 2 lakh workers in plant level classes is being extended now to all plants. This method can also be usefully followed in the school and college programmes which are so literary centred and academic in the wrong sense. With regard to teachers' emoluments, the U.P. scheme to provide Rs. 2,000 life insurance benefit to every primary and junior high school teacher in return for paying a monthly premium of Rs. 2.50 to be deducted from the salary should be followed by other State. The scheme ensures that every teacher has both a family pension and death gratuity. With regard to media, the micro wave radio and television linking of Bombay, Madras, Bangalore, Panaji, and Trivandrum, enabling television programmes to be exchanged and rebroadcast between all these States and centres is an important development. Further some useful conclusions about the use of text books as a teaching and learning tool were reached at the January seminar organised by the Tamil Nadu Text Book Society. The text book is for us the major tool in school. (It is not so in out of school programmes). The main responsibility for good quality text books rests with the Government as a result of the nationalisation of text books. This means that now that the Government's responsibility is clearly established, it should turn to the academic community and the book trade and encourage the development of creative and innovative books which in turn will keep its standards high. It should help in the development of a learning system and above all in an examination system under which the pernicious system of bazaar notes go out of existence. All other consequences, to establish machinery to evaluate continuously text books, to increase the supply of printing paper, to provide free text books to vulnerable sections of the community, the avoidance of political propaganda, and the producing of multiple sets of books for each subject—all these like the disappearance of bazaar notes will follow as a necessary consequence of the regenerated educational system and the reform of the examination system. The reform of the examination system is probably the most urgent single educational issue facing us. Within the existing system, the State is now using computerised processing of SSLC results. In March there will be 2.2 lakh students sitting for their examinations. In October last 30,000 appeared and their results were computerised and announced on December 30. On this basis the March papers will be processed reducing the tabulation work load, enhancing the accuracy of the arithmetic involved, screening for errors and discrepancies and ensuring complete secrecy. But really the system needs to be changed. It is uneducational as it is not a test of attainments, it is unethical as it encourages deception and cheating and it is useless for larger purposes as employability and integrity which the examination system does not even vaguely touch. Gujarat which has decided at a meeting called by the Governor, of Vice-Chancellors, educators and government official to adopt the 10+2+3 system, with multiple options for a 2 year diploma after the 10 year school and selective admission for colleges, of which some would become autonomous, has also decided to replace the existing examination system by one which will assess the students active participation in productive and developmental activities, co-curricular programmes, social service, regularity of attendance, general behaviour as well as intellectual capacity. It has decided to delink degrees from the employment and recruitment system. The detailed application of these decisions will be of interest to all in the Country and particularly to this State. Bombay Uni-

versity has taken a continuous first step in introducing in the M.A. course periodic assignments and oral and field tests to cover 60 per cent out of 100 marks in each subject, the remaining 40 being based on the written examination at the end of the year. It has also set up a 10 member student consultative committee for each of the university's board of studies, so that there will be student participation in an advisory form in university matters. These are small but important moves in the reform movement of the Country. It is time that this State also moved now into such an action programme.

## Science :

The National Committee on Science and Technology (NCST) issued its draft approach to science and technology in the Fifth Plan. It proposes (a) raising the outlay in science and technology so that by the end of the Fifth Plan one per cent of GNP is invested in it; (b) levying a cess on industry in order to raise Rs. 300 crores during the Plan period for R & D; (c) attaining self reliance through a mix of imported and indigenous scientific and technological resources in which the proportion of the indigenous component will steadily increase both in quantity and in indigenous based technology projects; (d) aiming at self sufficiency in materials, manpower, technology and management; (e) immediately applying the present stock of scientific and technological capabilities to standardisation, quality control, better plant utilisation, maintenance and safety; (f) concentrating in the rural sector on crop storage, repair and maintenance of pumps, transport, crops spraying and pest control equipment; (g) integrating activities of major R & D agencies into a national pool; (h) surveying, mapping and managing our national resources to meet our minimum needs and reforming education to make it employment oriented; (i) eschewing turn key and near turn key contracts to promote technological self reliance; (j) establishing personnel practices and salary scales in power plants, water supply systems, agro-services, etc. in line with those in R & D establishments; (k) dividing the economy into 24 sectors for each of which a panel of scientists is at work. In the power sector, the panel has prepared a framework for the setting up of an Institute of Energy Planning and a 500 MW thermal power station by 1978-79 through indigenous R & D. The panel has emphasised the need for maximum utilisation of coal and proposes 2 commercial low temperature carbonisation plants one in the East and the other in the South to produce gaseous fuel from non-coking and semi-coking coal, and a coal to oil conversion plant of a million tonne per day capacity. The panel is also examining as suggested earlier, alternative sources of non-conventional energy sources—solar, wind, tidal and chemical. The panel on health and family planning has proposed a National Nutrition commission which will be responsible for executing all nutritional programmes and coordinating and developing further the research in several institutions. The Marine resources panel proposes an autonomous central agency to formulate, coordinate and implement projects in marine resources and ocean science and engineering, which include installation of an integrated network of oceanographic instrument and buoys, offshore structures and submarine pipelines, floating platforms, etc. The heavy engineering panel has identified 50 projects including transforming the heavy engineering machine tools design centre into a design institute. The panel on chemical industry has recommended population control drugs, recovery of potassium chemicals from sea water, disalination of brackish water. The steel

panel has elaborated 200 projects ranging from exploitation of low grade ores to alloys for electronic instruments, etc. Similar proposals emanate from the panel on housing and that on special materials such as R & D on mica products which we export in raw material form. The science approach paper is a little too general and somewhat high sounding for a scientific document. In fact it has more obiter dicta in it than the policy part of the Approach Paper to the Fifth Plan, which reflects the policy and political decisions of the Government. Some of these generalities about science and technology are open to question and are not necessary any way. The work of the panels on the other hand is more impressive and convincing, but here too there is a tendeucy to proliferation and diffusion. There is need for the projects to be tied in directly with the Fifth Plan as it is elaborated both as components of specific projects and as long term programmes aimed at self reliance. If a distinction is made between the two parts, the scientific coat can be cut according to our resources cloth. Other scientific developments include the particle board developed by CSIR laboratories from agro wastes like maize cob, rice husk, and groundnut shells which have qualities of insulation, sound absorption, insect resistance and can be used as core material in furniture and for ceiling and interior panelling. The Rohini 560 rocket was successfully flight tested from Sri Karikota range, performed all the experiments and provided the scientific information expected. The Madras symposium on the taxonomy of fungi emphasised the importance of taxonomical studies to promote disease resistance of plants and the importance of concentrating such studies on fungi for their positive and negative effect. A new technique, bacterial leaching, has been developed by Indian metallurgists for extracting copper and uranium from low grade ores, without causing chemical pollution and without expensive grinding and filtering equipment. Further research is needed to isolate and study the bacteria specific to each ore and so establish firmly the new technology. The National Research Development Corporation (NRDC) of India reports a 34 per cent increase in premia and royalty for 1971-72 involving 11 new NRDC processes going into production, saving Rs. 2.5 crores per annum in foreign exchange and 11 projects costing Rs. 611 lakhs. For the Fifth Plan it plans more effective utilisation of indigenous know-how available in our laboratories, use of the know-how available in our industries—public and private,—collaboration with industry and R & D establishments to prevent repetitive import of technology, and an increase in its provision of risk capital. In the State as proposed in the Educational Plan, diploma courses in agriculture are to be organised with the help of ICAR. Such diploma agriculturists are not only needed for extension work, they are needed as agricultural teachers in the comprehensive high schools during the Fifth Plan. The Indian Science Congress meeting in January in Chandigarh heard the Prime Minister call the scientists to join the national effort to end poverty and unemployment. All industries are to establish R & D units to end unemployment among scientists and engineers. The priorities for science joining in the national battle against poverty are clear and were once more emphasised. There was good self criticism that Indian scientists have not delivered the goods in spite of their receiving all the help and support they need. In some areas there have been impressive advances—such as measuring changes in the structure of the nucleus of the atom, electronics development from cyclotrons, lasers and thermo nuclear reaction, etc. But the congress itself

seemed to vindicate the judgement that our scientists have not really lived up to their own capacities and to support accorded to them by the government and the Country since independence. It got diverted in discussing a proposal for a super committee which will replace NCST and which will have executive powers and report directly to the Prime Minister. The congress itself has become somewhat unmanageable and what is needed is to reform and use an instrumentation like this so as to push forward with making precise the NCST plan and projects. There is no need to waste time and energy devising new power structure.

## Health :

The intensive house to house survey among 80,000 persons in North Madras under the Greater Madras Leprosy Treatment and Health Education Scheme (GREMALTES) has revealed 1,300 cases of leprosy. Among 15,363 school children examined, 285 cases of leprosy - 18 per 1,000—have been identified. There is also a growing leprosy consciousness among the people, 49 per cent of 2,837 cases have reported themselves. In early January the fourth rehabilitation home for leprosy beggars was opened at Machuvadi on a 25 acre site. Six more homes are being opened this fiscal year so that the entire 6,000 leprosy afflicted beggars in the State can be rehabilitated. This entire programme has been financed by the Rs. 1 crore contributed by the people of the State and its success depends on a total programme of rehabilitation and education of the beggars. Scientific as well as empirical evidence suggests that protein deficiency is part of calorie deficiency. A recent survey by the National Institute of Nutrition in Hyderabad shows that while 40 per cent of the middle class people spent their incomes on food, 82 per cent of the incomes of the poor families are spent on food, mostly on cereals, with very little on green leafy vegetables, and about half of the recommended milk intake. Its conclusion is that the poor nutrient intake is due to using limited items of food and ignorance of sound food habits. The general consensus is that the nutrition programme should aim more at increasing the calories intake of people and spread them among locally available protein sources rather than relying too much on lysine fortified breads and foods. Discussion and controversy continues with regard to what has come to be called the Union Plan for registered medical practitioners or peasant doctors. The problems continue to be that analysed in Vol. III No. 1 page 42 of the Bulletin. Should we have two systems of medicine —the indigenous and Western—functioning side by side with no attempt at integration now but mutually supporting and reinforcing each other, or should we have an integrated scheme? The Union Government programme proposes giving indigenous medical personnel a period of training in Western medicine which is now being considered beyond the original four months proposed and to be placed in charge of 2,000 people. This is encountering strong opposition from the allopathic medical profession—the Indian Academy of Pediatrics is the latest in this regard. The Tamil Nadu version of the project is to have each block covered by 20 health units manned by both allopaths and degree holders in indigenous medicine (unani, ayurvedic, siddha and homoeopathic). In fact this scheme is already being tried out on a pilot basis in the State. The only way, however, that the Union Government can be persuaded to hold back on their scheme and let the indigenous medical specialists be given all encouragement to provide indigenous medical care to the rural people and not dabble in allopathic medicines, is, if the Western medical personnel who are now

all concentrated in urban centres are scattered more widely and evenly. In this regard the Kerala cooperative scheme under which each of the 11 medical cooperatives have two categories of membership (a) doctors, nurses, and other paid staff who number 7 and (b) 120 individual beneficiaries residing in the area. The share capital for each unit is Rs. 5,000 raised from members and Rs. 15,000 from the Government. The area of operation of a dispensary to which a laboratory is attached is the panchayat. One of the advantages of the scheme is that apart from employing allopathic doctors in rural areas, it helps in the development of a good personal relationship between doctor and beneficiaries—as all are members of the cooperative. The U.P. government order banning private practice by government doctors will not end certain anomalies and malpractices but might have some effect on the distribution of doctors. One other important medical issue—important for this State which has started a voluntary financed eye camp hospital, is blindness. In the Country there are 4.5 million blind people—out of 15 million blind persons in the world. Two thirds of our 4.5 million blind can be cured by cataract operation which costs only Rs. 40 per operation. This is what our eye camps in this State are involved in. There is the further problem of the majority of our blind people owing their blindness to superstition, apathy, lack of nutrition and to quacks. Here a good educational programme, supported by change in food habits plus a few vitamin concentrates supported by a 3 month opthalmic hospital training to all medical students can bring about a sensible reduction in this tragic ailment. That is what this State should now move forward to.

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## V. Employment :

The employment picture in the State registers important features. According to the Directorate of Employment and Training the number of job seekers in 1972 was 4.67 lakhs, which was an 18 per cent increase over the previous year and with 79 per cent of them being first applicants for jobs. The non-agricultural workers amounted to 15.74 lakhs, of which 15.6 per cent were women, 9.35 lakhs in the public sector and 6.39 lakhs in the private sector. 1972 was a particularly bad year in the number of mandays lost, because due to the prolonged Simpson labour unrest, 21.5 lakh mandays were lost in the first quarter (with a production loss of Rs. 3 crores) compared to 22.8 lakh mandays lost for the whole of 1971 and 10 lakh mandays for 1970. For 1973 the petro-chemical complexes developing at Manali and Tuticorin and Salem Steel will provide additional employment, though the major employment for those seeking employment will be in the small scale and agricultural sectors. From January 80,000 plantation workers in 135 tea and coffee estates have had their wages increased from 10 paise per day to 40 paise per day plus various lump sum payments. The importance of this settlement is that it replaces all the various main and fringe benefits contention and has introduced an air of work satisfaction and efficiency in the industry. Part of the employment

problem in the State is the problem of beggary which is being dealt in a pragmatic way through the voluntarily raised Beggar Rehabilitation Fund and the 10 homes that are being established to rehabilitate beggars suffering from leprosy (see page 196 of this issue), This important effort faces two problems: misplaced sympathy of the public which leads the beggars to withdraw from the homes because they can rely on charity from the public and the very high returns from begging compared to other work. In fact with regard to the first cause—public charity—a recent survey shows that the people are spending Rs. 1.1 crore a day or Rs 400 crores a year on 5.5 million beggars. On the second point —beggars' earnings—the average income is Rs 2 per day, in Madras it is Rs 8 a day, of blind or disabled Rs. 20 a day. 3,000 persons are becoming beggars every year due to diseases (51.8 per cent), physical handicapness (13.9 per cent) and other causes. Madras has 25,000 beggars who fall into 4 categories—child beggars, disabled beggars, professional beggars and story telling beggars. The problem of rehabilitation and employment of this group is a long term one on which voluntary agencies should be at work.

The Fifth Plan programme of employment is still being worked out. There are a number of uncertainties, including what is the exact number of workers in the Country. The change in the concept and the reference period as between the 1961 and 1971 census has added to the uncertainties. But some things are clear and should form the basis of employment programmes in the Fifth Plan. First there is no structural change in our employment pattern. Despite the change in definition, concepts, etc. in 1961, 69 per cent and in 1971, 70 per cent of our labour force were employed in agriculture and allied occupations. It is here that we must create and generate gainful employment in the Fifth Plan. Second in a very round about manner it is possible to compute the number of unemployed which ranges from 13-15 million. This, however, is a pure guestimate. Third the employment programme for the Fifth Plan must be concentrated on productive employment, move a certain number of secondary occupations, plan employment at the micro level and launch special programmes for educated unemployed. From this point of view the provison of Rs. 90 crores in the 1973-74 budget to provide jobs for 5 lakh educated unemployed is a good start. Here agriculture, cooperation, survey of natural resources, small industries and health services are the main areas for employing technical and non-technical unemployed. The finance must be provided for the main part by the nationalised banks, must involve reorientation of the cooperative machinery and measures for provision of training and apprentice facilities. The basis is the first start last year of the various crash programmes for employment of technicians, engineers, scientists, teachers, doctors on which further projects can be developed. The cell proposed in the Union Planning Commission to watch and nurture this programme is good, if it can help to overcome procedural and bureaucratic delays and bottlenecks.

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# VI. Other Items

## ICSSR Review Committee:

The Indian Committee of Social Science Research has set up a Review Committee (a) to review the current status of social science research and its future directions; and (b) in the light of its findings, to evaluate the work of the ICSSR in the last four years and to indicate the lines on which it should be developed in the Fifth Five Year Plan. The Committee is requested to submit its report by 30th September 1973. The Committee is composed of Dr. Malcolm S. Adiseshiah, Chairman, Dr. Kamala Chowdhry, Dr. Nitish De, Prof. S. C. Dube, Prof. D. T. Lakdawala, Dr. V. B. Singh, and Prof. M. Abel, Member-Secretary. At its first meeting in January, the Committee set itself the following targets (1) to identify the significant trends in the development of research in the various social sciences, to assess their value and relevance, and to identify the gaps in social science research which should be filled in future, (2) to study the problems confronting social scientists in their research work and to suggest ways of overcoming them, (3) to evaluate the aims and objectives, and the operational methods as followed at present by the ICSSR, and to indicate improvements, (4) to examine the structure and procedures of the ICSSR with a view to ascertaining their effectiveness and adequacy, and propose appropriate reforms, (5) to consider the ICSSR's own work, viz. the documentation services, coordination and over-view of research, etc, and to recommend new strategies to be adopted by the Council for developing research in social sciences, (6) to consider the ICSSR's programme for the training and development of social science research personnel, (7) to work with the University Grants Committee with a view to establishing a division of functions, (8) to review the relationship of the ICSSR with Government and put forward guidelines for enabling the ICSSR to function as an autonomous agency, (9) to review the relationship of the ICSSR with the universities, colleges and institutes of research and centres of advanced study with a view to better serving the scholarly community, (10) to explore the possibility of joint action with CSIR, ICAR and RPC, (11) to review the relationship of the ICSSR with Scholarly Associations of Social Scientists and other professional organisations and (12) to assess the financial requirements of the Council for the next five years, in light of programme requirements. *The Committee invites all social scientists from all over the Country – those in universities and colleges and in Research Institutes and Centres and those involved in using social science research such as Government Departments, public and private sector business, trade, agricultural units, etc. to write to the committee (care of Prof. M. Abel, Member-Secretary, ICSSR Review Committee, 74, Second Main Road, Gandhinagar) expressing their views on the two points* that constitute the terms of reference of the Committee. The Committe has also addressed separate questionnaires to (a) heads of social science departments and Research Centres (b) all social scientists (c) users of research (d) those concerned with the organisational aspects of ICSSR and plans to meet some of them in groups in establishing its final report.

## Third Census of social sciences research in Tamil Nadu:

The Madras Institute of Development Studies is conducting the third census of Social Science Research in Tamil Nadu

and *requests all Social Scientists engaged in research to send in to the Institute by April 1, 1973 information on the research engaged in* on the following lines:

1. Discipline :
2. Title of Research Project :
3. Commencement date :
4. Termination date :
5. Brief summary of the Research Project (a) objectives :
   (b) Methodology:
6. Is the project leading to a degree. If so, what degree :
7. Department sponsoring the project :
8. Institution to which Department belongs :

## Seminar of Research Supervisors and Guides on Economics Research Methodology :

*Date and Place:* The Madras Institute of Development Studies in cooperation with the Indian Council of Social Science in organising a two week seminar for supervisors and guides of Economics Research Scholars, which at the kind invitation of the Vice-Chancellor of the Karnatak University, Dharwar will be held in the Department of Economics Karnatak University, Dharwar from May 20th to June 2nd, 1973.

*Programme:* The Seminar's programme of work will be :

(a) During the first week it will discuss and agree upon an economics research methodology course, using as its base a draft curriculum prepared by Prof. T. N. Krishnan of Kerala University with the assistance of Dr. B. Sarveswara Rao of Andhra University and Dr. C. T. Kurien of Madras University.

(b) During the first part of the second week, the seminar will discuss the problems of gaps in current research and the extent of developing new areas of knowledge, on the basis of a paper prepared by Profs. V. Shanmugasundaram, Gautam Mathur and Gajalakshmi.

(c) During the second half of the second week, the seminar will discuss the problems of and the means of assistance to supervisors and guides on the basis of a paper prepared by Prof. Anantharaman, after consultation with the appropriate staff of the 14 participating universities.

*Membership:* 28 Research supervisors and guides from the Southern Universities —Andhra University, Annamalai University, Bangalore University, Calicut University, I. I. T. Madras, Karnatak University, Kerala University, Madras University, including Gandhigram, Madurai University, Mysore University, Tamil Nadu Agricultural University, Osmania University, Venkateswara University and 2 from outside the region will be seminar members. Prof. Tigadi, Prof. & Head of the Department of Economics, Karnatak University, Dharwar will be the Seminar chairman.

Dr. Dantawala, Dr. K. N. Raj, Prof. Kirith Parikh, Prof. Subramaniaswamy have been invited as Resource Personnel to the Seminar.

*Administration:* Each member will be provided with return airfare or first class railway fare, board and lodging at the University and Rs. 10/- per day from out of pocket expenses. Each University is allotted a certain number of places in the seminar. It is desirable that the Vice-Chancellor or Heads of Department appropriate forward one or two more applicants than the places allotted so that there can

be some selection and suing up of all available places. All applications should reach Prof. Tigadi, Prof. & Head of the Department of Economics, Karnatak University, Dharwar-3, Mysore by April 1, 1973.

## Centre of Development Studies, Trivandrum :

Situated on a pleasant hillock, the permanent building of the Centre of Development Studies, Trivandrum, is being completed rapidly. Its campus include both the research centre and library and quarters for fellows and a guest house—all at a low cost of Rs. 10 lakhs. The centre has many interesting features. It has quite unique relations with the Kerala University. It is autonomous in relation to the University rules and regulations but its staff are also honorary lecturers of the University Department of Economics, just as the Professors of the Department are its fellows and the research guidance and work is mutually organised to supplement each other's responsibilities. Second it has developed a relationship with Jawaharlal Nehru University under which it can provide one year M.Phil. research courses to Professors and lecturers of Economics and affiliated colleges and others as well as short term refresher programmes for Government and business executives. Third it has a small outstanding group of fellows attached to it, each specialising in a particular field. The fellows now are Prof. Pannikar — also its Director, Dr. Krishnan, Dr. K. N. Raj, Dr. Gulati, Mr. Krishnaji and Mr. Bahadur.

## Advanced Centre of Tamilology

The first advanced centre of Tamilology was inaugurated in the Presidency College, Madras in mid January. The Centre will engage in the study of the unexplored regions of Tamil literature, the renaissance movement in all its aspects, the multi form development of modern literature to short story, novel, drama, essay and use modern technology in study and research into Tamil linguistics. The centre fills a much felt need for advanced Tamil studies in Madras, There is now need for coordination of Tamil research studies by the Universities of Annamalai, Madurai, Madras and Trivandrum, the new Centre of Dravidian linguistics at Tirupati under the aegis of the International Institute of Tamil Studies, Madras.

## Indian Council of Social Welfare

The Indian Council of Social Welfare as part of its silver jubilee celebrations organised at the end of January, a 3 day Workshop in Madras on Social Development. It defined social development to cover the sectors of health, education, housing, agriculture, community development and social welfare and examined the current role of the voluntary agencies in each field with a view to deciding the future work that they should carry out. The recommendations of the Workshop referred to the fact that social development programmes should be need based, should build institutions, cover education in its widest sense and ensure optimum utilisation of human resources. Voluntary organisations have an innovative and creative role in education, have local grass roots basis, and should be funded generously by the State. A number of specific programmes were listed for priority attention by the voluntary agencies. The workshop was well organised, led and filled an important gap in current planning. Its value could have been enhanced if some specialised organisations like the Andhra Mahila Sabha, the Council for Social Development, had participated, if more attention had been paid to the Fifth Plan programme and priorities and if a minimum programme of activities to be undertaken by the

agencies with their own resources had been established.

## Systems Approach and Hydraulics and water resources engineering :

The Indian Institute of Technology, Madras and the College of Engineering, Guindy organised a consultation at the end of January on the tools and methods of systems analysis in decision making with reference to problems of hydrology. After a discussion and expose of the systems approach to the attending practising engineers from the public and private sectors, there were 2 case studies. The systems approach was applied to the Parambikulam-Aliyar project and to the outer harbour project. The conclusion was that models cannot replace managers but managers who neglect these decision making tools are running risks of duplication, facing gaps and not seeing the relation of a particular decision to the system as a whole.

## Asian conference on Teaching and Research in Social Sciences :

The Indian Council of Social Science Research, New Delhi, and the Indian Institute of Advanced Study, Simla, in collaboration with the Indian National Commission for Cooperation with Unesco, are organising an Asian Conference on Teaching and Research in Social Sciences at the Indian Institute of Advanced Study, Rashtrapati Niwas, Simla from Monday the 21st May, 1973 to Saturday the 26th May, 1973. The Conference will deal with teaching and research in social sciences in the Asian region. The term 'social sciences' covers economics (including commerce, business management), political science (including international relations and public administration), sociology, psychology and the social science aspects of anthropology, demography, geography, history, law and linguistics. Apart from review of the existing position of teaching and research in social sciences in the countries of the Asian region, the conference will also deal with two major issues : (i) measures needed to improve the teaching and to promote research in social sciences, and (ii) development of regional cooperation and collaboration in the field. The countries participating in the conference will be: Afghanistan, Bangla Desh, Bhutan, Burma, Cambodia, Ceylon, China, India, Indonesia, Iran, Japan, Laos, Malaysia, Mongolian People's Republic, Nepal, North Korea, North Vietnam, Pakistan, Philippines, Singapore, South Korea and Thailand. Unesco and the International Social Science Council will also attend.

## February Development Seminar :

The February Development Seminar paper, 'Unemployment and Disparities in employment opportunities' by Mrs. Chinnappa, Lecturer in Statistics, Madras University, together with a summary of the discussion of the paper at the seminar chaired by Dr. Malcolm S. Adiseshia, Director, Madras Institute of Development Studies, appears as the first article.

## Second Article :

Another article, 'Small Shareholders and Planning', appears as the second article.

# UNEMPLOYMENT AND DISPARITIES IN EMPLOYMENT OPPORTUNITIES IN TAMIL NADU

By

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## 1. Introduction :

1.1 This paper, as per the suggestion of the Director of the Madras Institute of Development Studies, should have been a critique and comment of the State Planning Commission's task Force Report on Human Resources. The Task Force Report is in its final stages of preparation and was not available for study. Some of the preliminary background papers prepared by the Task Force were however made available to me. On going through them I was struck by the number of times the following remark on estimating unemployment (made by the Experts Committee on Unemployment Estimates of the Union Planning Commission) was quoted in the different papers: "that the supporting data available for the estimates were not adequate and the conclusions based on them were, therefore, unavoidably inaccurate." Other remarks in the papers expressed the anxiety and need "that we have reliable estimates of present supply (of manpower) and its pattern", "that there are to be sector-wise, area-wise analyses of resources, present and potential." I decided then that rather than comment on the "employment oriented" plan for Tamil Nadu and assess or question the means suggested in these papers to achieve such an orientation, which task had best be left to the eminent Economists in the State, I would prefer to (a) comment on the data used in these background papers and (b) independently attempt to piece together a picture of the employment -unemployment situation in the State from whatever data I could lay my hands on, including those in the background papers themselves. In the process I hope to present a fairly comprehensive picture that would enable one to judge the gravity of the situation and evolve necessary policy measures to improve it.

## 2. The Pattern of Unemployment in India :

2.1 Opportunity for productive work is without doubt one of the basic needs of any human being—not only as a means to earn a living to help support his family but also and more so, as a means to achieving self-respect and establishing his social status. Unemployment whether overt or disguised is both a symptom and cause of economic underdevelopment. Whichever way one chooses to define, measure or examine it, a high rate of unemployment is a sure indicator that the economy is not progressing.

Even a cursory survey of the economy of India will show that unemployment is one of its major ills and needs to be tackled urgently and effectively if there is to be any tangible improvement in the general standard of living. The findings of the

spate of recent studies on poverty in India have shocked those who were complacent in the belief that since the economy was growing, (however slowly and unsteadily), there should be a gradual improvement in the standard of living of the poor and that full employment would follow as a result of economic development. It needs no sophisticated analysis to show the close relationship between unemployment, underemployment and poverty in India. "Unemployment and underemployment are major causes of poverty, and the objective of providing more and more productive employment is a major element in the broader objective of promoting higher levels of living."[1]

2.2 If usable measures of the extent and intensity of employment, unemployment and underemployment could be evolved (however inadequate these terms, their purport is widely understood) they could be applied to analyse the situation and plan for full employment. Unfortunately employment and therefore 'Unemployment' and Underemployment (and disguised unemployment and disguised under-employment) are difficult concepts to quantify and are not amenable to precise measurement. This is particularly so in India where the vast majority of the people are poor and among whom all able-bodied (although ill-fed ?) members of the family are pressed to work at low intensity and ill-paid jobs so as to earn a bare minimum of living and where production in the major sectors of agriculture, cottage and small-scale industries is still unorganised or organised to a large extent within households in the traditional way. This pattern of organisation has continued to prevail and dominate the employment scene specially in rural areas because of the relatively slow growth of the modern industrial sector and lack of employment opportunites in it for the growing numbers entering the labour force every year; and because of the elastic capacity of the household organisations to absorb more unpaid family labour, although the additional employment created thus does not effectively add to the production or growth of this sector. Also, when this capacity of the rural household sector (particularly agriculture) is stretched to the utmost, the rural unemployed migrate to urban areas in search of work. These migrants, most of whom are inevitably illiterate and unskilled, secure only ill-paid or casual jobs, if at all, and swell the number of underemployed and unemployed in urban areas.

2.3 Absolute and open 'unemployment' as per the text-book definition of a person who has no work and is available for work is therefore not as widespread in India as it is generally believed. This is one of the reasons for the low figures of unemployment given by the Census and the National Sample Survey both of which define employment in terms of 'being at work directly or indirectly on atleast one day in the week preceding the date of enquiry'.

2.4. What is needed therefore is not a single measure of employment, unemployment or underemployment but an analysis of the spread and intensiveness (measured both in terms of time and wages earned) of employment and of unemployment among different groups of people—by age, sex, geographical regions, qualifications, and occupations, (Such analysis might also help in arriving at a measure of some kind of a 'threshold' of employment to be specified on a joint consideration of average number of hours worked per day and average wages earned). Special studies in depth are needed to uncover the extent of underemployment among the traditionally under-privileged — women, agricultural labourers, small cultivators operating uneconomic holdings, scheduled castes and scheduled tribes, to mention

1. "Employment objectives in Economic Development" — Report of a meeting of experts appointed by the I. L. O., 1961.

some of the more obvious areas of acute underemployment or unemployment. Unemployment among the educated and employment of children, of the aged and of the physically handicapped are other areas of study that need immediate attention.

**Some Comments on the data used in the background papers of the Task Force on Human Resources:**

3.1 The sources used for the data presented in these papers are mainly the 1971 Census, Employment Exchanges, Employment and Market Information (EMI) returns, data collected by the Annual Survey of Industries, and data compiled in the Tamil Nadu Economic Appraisal by the Finance Department of the Government of Tamil Nadu from various Government departments. These data have, inspite of their limitations, been put to good use in the background papers. My comments here will be confined to the limitations of these data that must be borne in mind while studying them.

**Census Data:**

3.2. Data from the various censuses subject to are substantial changes in definitions. The 1961 definition of a 'worker' was rather elastic in that, anybody who rendered some assistance or other in work like cultivation and household industries done by other family members in the fortnight preceding the date of enquiry was included as a worker. On the other hand in the 1971 Census it was specifically mentioned that a 'person engaged primarily in household duties such as cooking etc. or a boy/girl who is primarily a student reading in an institution, even if such a person helps in the family economic activity but not as a full-time worker' should be treated as a non-worker in respect of main activity. Hence perhaps the decrease in the absolute number of workers, particularly in rural areas and among females. The high proportion of workers particularly among females in 1961 as compared to 1971 is also explained by these definitions. The decrease in the proportion of workers among males in spite of increase in the absolute number of workers gives a measure of the increase in unemployment in the decade.

TABLE 1

**Comparative Picture of the Number of Workers in India and Tamil Nadu in 1961 and 1971 (in $10^3$)**

| CLASS | ALL INDIA | | | | | | TAMIL NADU | |
|---|---|---|---|---|---|---|---|---|
| | 1961 | | | 1971 | | | 1961 | 1971 |
| | Rural | Urban | Total | Rural | Urban | Total | Total | Total |
| Male | 106620 | 22395 | 129016 | 120336 | 28454 | 148790 | 10103 | 11625 |
| Female | 55402 | 4000 | 59402 | 31112 | 3703 | 34815 | 5248 | 3449 |
| Persons | 162022 | 26395 | 188418 | 151448 | 32157 | 183605 | 15351 | 15074 |

Source : Census Publications.

TABLE 2 (a)

**Work Participation Rates(*) Among Males and Females in Rural and Urban Areas — All-India**

| Class | | 1961 | | | 1971 | | |
|---|---|---|---|---|---|---|---|
| | | Rural | Urban | Total | Rural | Urban | Total |
| Male | ... | 58.22 | 52.40 | 57.11 | 53.65 | 48.62 | 52.55 |
| Female | ... | 31.40 | 11.09 | 27.95 | 14.55 | 7.37 | 13.18 |
| Persons | ... | 45.06 | 33.48 | 42.96 | 34.53 | 29.56 | 33.54 |

Source : Census Publications.

TABLE 2 (b)

**Work Participation Rates(S) Among Males and Females in Tamil Nadu**

| Class | | 1961 | 1971 |
|---|---|---|---|
| Male | ... | 59.74 | 55.96 |
| Female | ... | 31.28 | 16.96 |
| Total | ... | 45.57 | 36.67 |

Source : Census Publications

3.3. In the case of seasonal workers in agriculture, household industry etc., the 1961 Census treated any person who had some regular work for more than one hour a day throughout the greater part of the season as a worker in that occupation. In the 1971 Census, a seasonal worker was treated as a worker with that occupation as his main activity if he was working on it for the greater part of the current or last season. Hence, irregularly employed labourers in agriculture also may not have been treated as agricultural labours in the 1961 census would tend to be counted as such in the 1971 census. The exclusion of members of the labour force who were casually employed in any activity from the working force in 1971 and inclusion of irregular workers in agriculture as agricultural labourers in the 1971 census, perhaps accounts for part of the increase in the proportion of agricultural labourers among workers in the 1971 Census as compared to the 1961 Census, particularly among female workers. Another possible reason is that dire poverty might have forced small cultivators to sell their farms to bigger farmers and take to agricultural labour.

The shift is oberved only between the number and proportion of cultivators and agricultural labourers in the two censuses; the number and proportion of other workers has not changed appreciably.

TABLE 3 (a)

**Occupation-wise Distribution of Number of Workers in India and Tamil Nadu in 1961 and 1971 (in $10^3$)**

| *Occupation* | *ALL INDIA* | | *TAMIL NADU* | |
|---|---|---|---|---|
| | *1961* | *1971* | *1961* | *1971* |
| Cultivator | 99510 | 78707 | 6458 | 4668 |
| Agrl. Labourer | 31482 | 47305 | 2828 | 4392 |
| Others | 57426 | 57594 | 6065 | 6014 |
| Total Workers | 188418 | 183605 | 15351 | 15074 |

Source : Census Publications.

TABLE 3 (b)

**Percentage of Cultivators and agricultural labourers to total workers among males and females in rural and urban areas—all India.**

| *Occupation* | | *1961* | | | *1971* | | |
|---|---|---|---|---|---|---|---|
| | *Sex* | *Rural* | *Urban* | *Total* | *Rural* | *Urban* | *Total* |
| Cultivator | Male | 61.09 | 5.56 | 51.45 | 56.05 | 5.32 | 46.35 |
| | Female | 58.88 | 12.09 | 55.72 | 30.86 | 3.81 | 27.98 |
| | Persons | 60.33 | 6.55 | 52.80 | 50.88 | 5.14 | 42.87 |
| Agrl. Labourser | Male | 15 77 | 2.21 | 13.41 | 24.92 | 4.67 | 21.05 |
| | Female | 24.82 | 10.57 | 23.86 | 49.55 | 5.93 | 45.93 |
| | Persons | 18.86 | 3.48 | 16.71 | 29.98 | 15.56 | 25.76 |
| Others | Male | 23.14 | 92.23 | 35.14 | 19.03 | 90.01 | 32.60 |
| | Female | 16.30 | 77.34 | 20.42 | 19.59 | 80.63 | 26.09 |
| | Persons | 20.81 | 89.97 | 30 49 | 19.14 | 88.93 | 31.37 |

Source : Census Publications.

## TABLE 3 (c)

**Percentage of Cultivators and Agricultural Labourers to total Workers among Males and Females in rural and urban areas—Tamil Nadu**

| Occupation | Sex | 1961 Rural | 1961 Urban | 1961 Total | 1971 Total |
|---|---|---|---|---|---|
| Cultivator | Male | 53.14 | 6.36 | 41.87 | 34.50 |
| | Female | 47.35 | 8.34 | 42.45 | 19.06 |
| | Persons | 50.97 | 6.78 | 42.07 | 30.97 |
| Agrl. Labourer | Male | 17.75 | 3.44 | 14.30 | 23.92 |
| | Female | 28.59 | 10.82 | 26.36 | 46.70 |
| | Persons | 21.81 | 5.01 | 18.42 | 29.14 |
| Others | Male | 29.11 | 90.20 | 43.83 | 41.58 |
| | Female | 24.06 | 80.84 | 31.19 | 34.24 |
| | Persons | 27.22 | 88.21 | 39.51 | 39.89 |

Source : Tamil Nadu — An Economic Appraisal, 1972.

*3.4. Data from Employment Exchange Registers*: are known to cover only one segment of the unemployed and to be biased in favour of the urban and literate unemployed. The figures are also known to be distorted because some employed persons keep their registrations alive in the hope of getting better jobs. However, they do give useful data by sex, educational qualifications and caste of those who choose to register their names at employment exchanges, and an idea of the general trend of unemployment over the years.

## TABLE 4 (a)

**Number of Unemployed as on the Live Registers of Employment Exchange in Tamil Nadu (as on 31st Dec. of each year)**

| Year | Total | Graduates | Under Graduate | Matrics |
|---|---|---|---|---|
| 1961 | 151,472 | 2987 | 2226 | 35,978 |
| 1962 | 162,936 | 2114 | 2741 | 40,850 |
| 1963 | 193,875 | 2662 | 2366 | 38 514 |
| 1964 | 191,085 | 2346 | 2257 | 43,202 |
| 1965 | 209,618 | 2801 | 1884 | 51 699 |
| 1966 | 213,184 | 4366 | 4067 | 56,444 |
| 1967 | 233,155 | 6561 | 4100 | 70,937 |
| 1968 | 276,930 | 9487 | 9947 | 96,130 |
| 1969 | 354 924 | 13810 | 10992 | 98,914 |
| 1970 | 401,533 | 21819 | 13158 | 144,009 |
| 1971 | 460,676 | 27658 | 14204 | 153,384 |
| 1972* | 502,302 | 28633 | 19662 | 167,081 |

Source : Statistics kept by Employment Exchanges in Tamil Nadu.
* upto July 1972.

The National Sample Survey estimated in 1966-67 that the proportion of urban unemployed who registered their names in employment exchanges was 43.58 per cent and that the proportion varied from 4.67 per cent among illiterates to 69.47 per cent among graduates and to 70.95 per cent among other than graduates with technical education'. The percentage registered among females was much lower for graduates and illiterates as compared to that among males although the over-all proportion of registered unemployed among females was not much lower than that among males. It may be noted that using the estimate that 44% of unemployed register themselves at Employment Exchanges, the total number of unemployed in Tamil Nadu as on July 1972 is about 1.14 million.

TABLE 4 (b)

**Percentage of Unemployed Persons Registered at Employment Exchanges by Educational Standard and Sex.**

| *Educational Standard* | *Males* | *Females* | *Persons* |
|---|---|---|---|
| Graduates | 75.48 | 47.45 | 69.47 |
| Other than graduates with technical education | 68.50 | 77.09 | 70.95 |
| Secondary | 69.86 | 63.00 | 68.31 |
| Literate, below Secondary | 35.02 | 47.93 | 36.21 |
| Illiterate | 14.18 | 5.89 | 11.19 |
| Total | 44.04 | 41.56 | 43 58 |

Source: N.S.S. Report No. 181 (Tables with Notes on Urban Labour Force, 21st Round, July 1966 — June 1967).

3.5 *The EMI returns* are collected every quarter under the Employment Market Information Programme from the 'organised sector'. which for the purposes of this programme is defined as all establishments in the public sector and all non-agricultural establishments in the private sector employing ten or more workers [3] This does not cover employment in the unorganised sectors—i e., those employed in agriculture, the self-employed, those employed in establishments employing less than 10 workers and those employed in the defence forces. Data is given separately for the public and private sectors and within the public sector by Central Government, State Government Quasi government and local bodies; by sex and by industry they afford ample scope for analysis of those employed in these sectors. These data have been used in a detailed analysis of occupational trends in Tamil Nadu, in one of the background papers of the Task Force (Manpower Study Series No. 1.

3. Tamil Nadu—An Economic Appraisal, 1972, Part I, Page 60.

**The Employment—Unemployment Situation in Tamil Nadu :**

4.1 The following tables have been put together in an attempt to present a picture of the employment, unemployment and underemployment situation in Tamil Nadu.

***Population Statistics* :**

4.2 *Table 5* : **1971 Census Population Data—Tamil Nadu**

| | |
|---|---|
| 1. Total Population | $412 \times 10^5$ |
| 2. Sex Ratio | 979 |
| 3. Proportion of Urban Population | 30.28% |
| 4. (a) Proportion of Literates | 39.39% |
| (i) Proportion of Literates in rural areas | 31.83% |
| (ii) Proportion of Literates in urban areas | 56.78% |
| (b) Proportion of Literates among males | 51.68% |
| (i) Proportion of Literates in rural areas | 44.68% |
| (ii) Proption of Literates in urban areas | 67.46% |
| (c) Proption of Literates among females | 26.83% |
| (i) Proportion of Literates in rural areas | 18.87% |
| (ii) Proportion of Literates in urban area | 45.55% |
| 5. (a) Proportion of Scheduled Castes | 17.77% |
| (b) Proportion of Scheduled Castes in rural areas | 20.82% § |
| (c) Proportion of Scheduled Castes in urban areas | 10.30% + |
| 6. Proportion of Scheduled Tribes | 0.75% + |
| 7. (a) Decennial (1961-71) growth rate of population | 22.01% |
| (b) ... ... ... rural | 16.03% |
| (c) ... ... ... urban | 38.44% |
| 8. Decennial growth rate of Literacy | 25.41% |
| 9. (a) Death rate per 1,000 | 10.5 § |
| (b) Birth rate per 1.000 | 27.2 § |

Source : Tamil Nadu, An Economic Appraisal, 1972 and Census Publications

\+ 1961 Census Data

Refers to the mid year population of 1970, estimated by the Director of Health Services and Family Planning, Tamil Nadu.

## TABLE 6

### 1971 Census Population Data by Districts in Tamil Nadu

| DISTRICT | 1971 Census Population in $10^{03}$ | % of urban Population | % of literates | % of literates among | | % of Schedule Caste (+) Population | Decennial Growth rate of Population | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | Males | Females | | Total | Rural | Urban |
| Madras | 2,470 | 100.00 | 62.05 | 70.48 | 52.70 | 12.38 | 42.86 | — | 42.86 |
| Chingleput | 2,889 | 34.77 | 39.05 | 50.73 | 26.65 | 28.07 | 31.54 | 8.20 | 120.68 |
| N. Arcot | 3,738 | 20.90 | 34.26 | 47.02 | 21.17 | 19.73 | 18.81 | 17.57 | 23.76 |
| S. Arcot | 3,607 | 14.22 | 31.48 | 44.65 | 17.90 | 26.30 | 18.34 | 16.51 | 30.74 |
| Salem | 2,987 | 26.61 | 31.39 | 42.60 | 19.88 | 14.52 | 20.83 | 12.54 | 51.64 |
| Dharmapuri | 1,674 | 8.59 | 22.07 | 31.35 | 12.50 | | 25.67 | 23.51 | 54.28 |
| Coimbatore | 4,357 | 35.65 | 38.81 | 50.94 | 26.13 | 14.98 | 22.49 | 11.04 | 50.48 |
| Nilgiris | 491 | 49 37 | 47.27 | 58.79 | 35.11 | 18.96 | 20.04 | 8.44 | 34 84 |
| Madurai | 3,931 | 33.63 | 41.60 | 54.90 | 28.14 | 15.26 | 22.41 | 18.82 | 30.17 |
| Tiruchirapalli | 3,845 | 22.24 | 37.44 | 51.38 | 23 39 | 17.73 | 20.53 | 19.02 | 26.10 |
| Tanjavur | 3,833 | 20.56 | 39.85 | 53.42 | 26.20 | 23.12 | 18.08 | 17.81 | 19.13 |
| Ramanathapuram | 2,857 | 26.09 | 39.53 | 54.47 | 25.22 | 15.41 | 18.00 | 15 90 | 24.37 |
| Tirunelveli | 3,194 | 32.19 | 44.97 | — | — | 15.79 | 17.00 | — | — |
| Kanyakumari | 1,228 | 16.64 | 58.10 | — | — | 4.05 | 23.20 | — | — |
| Tamil Nadu | 41,103 | 30.28 | 39.39 | 51.68 | 26.83 | 18.01 | 22.01 | 16.03 | 38.44 |

Sources: Census of India 1971, Provisional Population totals + 1961 Census data

The higher growth rate of urban population as compared to rural population is an indicator of the migration to urban areas. The high proportion of Schedule Castes in the State, particularly in rural areas indicates the need to devote special attention to these backward classes. The growing rate of literacy, outstripping even that of population, gives an idea of the magnitude of the problem of educated unemployed that will worsen if adequate measures to employ them are not taken early enough.

4.3 Table 6 gives a similar picture of population statistics at the district level and highlights the substantial variation between districts in population content, proportion of urban population, of scheduled castes, population growth rates and literacy rates. These need to be taken into account while planning for employment generation at the district level. The high urban population growth rates are evident at the district level also, particularly in Chingleput.

4.4. *The Working Force*: Tables 2 (b) and 3 (b) give an indication of the proportion of the working force (or employed to the total population and their distribution by broad occupational groups. The low proportion of the employed among women in 1719—16.96% of the total female population (as opposed to 55.96% among men) and the high proportion of agricultural labourers in the State in 1971 (29.14% among all working people, 23.92% among working men and 46.70% among working women) give a rough indication of the large number of people in the State who are most likely to be underemployed for the major part of the year.

**The Unemployment Rate :**

4.5. Table 7 gives data on the unemployed for Tamil Nadu and all-India compiled by the National Sample Survey in 1964-65. Although out-of-date, this table helps in projecting the total number of people who are currently openly unemployed.

TABLE 7

**Percentage Unemployed to total Population(A) and to the total Labour Force (B) in each class (1964—65)**

| | Sex | Rural | | Urban | |
|---|---|---|---|---|---|
| | | *(A)* | *(B)* | *(A)* | *(B)* |
| Tamil Nadu | Male | 1.94 | 3.51 | 2.26 | 4.32 |
| | Female | 3.19 | 9.16 | 0.78 | 4.50 |
| | Persons | 2.55 | 5.64 | 1.53 | 4.36 |
| India | Male | 1.42 | 2.68 | 1.35 | 2.63 |
| | Female | 2.10 | 7.85 | 0.98 | 7.31 |
| | Persons | 1.75 | 4.36 | 1.18 | 3.51 |

Source : Based on data in the N. S. S Reports No. 173.
(Tables with Notes on Employment and Unemployment in Rural and Urban Areas of India, 19th Round, July 1964—July 1965) and Report No. 181.

The proportion of unemployed to the total population in a class (sex × region) given under columns (A) in the above table is a crude measure of unemployment. A more meaningful measure could be the proportion of unemployed to the total labour force (who are subject to the risk of unemployment) in each class, given under columns (B) in the table. Whichever the measure used, the unemployment rate in Tamil Nadu was much higher than that at the all-India level. While the unemployment rate for females in rural areas (9.16%) exceeds that for males (3.51%), it is not quite so in urban areas. Applying the rate of unemployment given in Table 6 to the 1971 Census population, the total number of persons in Tamil Nadu who are fully unemployed may be estimated as about 9.2. lakhs (7.3 lakhs in rural areas and 1.9 lakhs in urban areas). It should be noted however that these rates apply to 1964-65 and the unemployment situation has apparently deteriorated considerably since then. The figure of 1.3 million unemployed quoted in the draft plan frame for Tamil Nadu may be fair estimate of open unemployment in this State.

**Underemployment :**

4.5. For lack of better data the number of underemployed in the State may be roughly estimated as the sum of the total number of agricultural labourers and those employed in household industries. This works out to nearly 5.5 millions. (4.4. millions is the number of agricultural labourers in the State as per the 1971 census. 1.1 million is an estimate of those employed in household industries among the total working population of the State in 1971 obtained by using the proportion employed in household industries in the 1961 Census)

This works out to about 13.5% of the total population (or 36.4% of the total labour force in the State) and is about 10 times as large as the number who are overtly unemployed. This underlines the severity of the problem of underemployment in the Country.

4.7 Alternatively, an idea of the low intensity of work among the employed can be had by studying the number of hours worked by them, although it must be admitted that accurate unbiased data on the number of hours worked, particularly among casual labourers and those working in the household sector, is difficult to collect. Table 8 gives data on this aspect collected by the National Sample Survey.

TABLE 8

**Percentage Distribution of Working Persons by Sex and Number of Hours Worked in a Week for Rural and Urban India (1964—65).**

| *No. of hours worked per week (in all occupations)* | *RURAL* | | | *URBAN* | | |
|---|---|---|---|---|---|---|
| | *Male* | *Female* | *Persons* | *Male* | *Female* | *Persons* |
| 1 — 7 | 0.65 | 1.49 | 0.91 | 0.50 | 1 55 | 0 68 |
| 8 — 14 | 3.15 | 6.18 | 4.10 | 2.14 | 6.64 | 2.92 |
| 15 — 21 | 3.05 | 5.65 | 3.86 | 1.52 | 5.12 | 2.14 |
| 22 — 28 | 3.62 | 9.06 | 5.32 | 2.05 | 11.27 | 3 64 |
| 29 — 35 | 5.38 | 11.22 | 7 21 | 3.07 | 7 97 | 3.91 |
| 36 — 42 | 7.92 | 12.48 | 9.34 | 7.56 | 13.86 | 8.64 |
| 43 — 49 | 5.90 | 5.06 | 5.64 | 32.36 | 14.53 | 29.29 |
| 50 — 56 | 18.56 | 16.18 | 17.81 | 16.50 | 15 34 | 16 30 |
| 57 & more | 51.77 | 32.68 | 45 81 | 34 30 | 23.72 | 32.48 |

Source : N. S. S. Report No. 173

According to this table, the proportion of employed persons at work for 28 hours or less a week was 14% in rural India (10% among males and 22% among females) and 9% in urban India (6% among males and 25% among females).

**Age-Specific Labour Participation Rates:**

4.8 Analysis of the employed by age-groups is facilitated by the following table at all-India level.

TABLE 9

**Age-Specific Labour Force Participation Rate by Sex for Rural and Urban India, 1964-65**

| *Age-Group (Years)* | *RURAL* | | | *URBAN* | | |
|---|---|---|---|---|---|---|
| | *Male* | *Female* | *Persons* | *Male* | *Female* | *Persons* |
| 5 — 9 | 2.85 | 1.99 | 2.42 | 2.70 | 2.48 | 2.60 |
| 10 — 14 | 22.24 | 18.17 | 20.37 | 11.35 | 7.44 | 9.53 |
| 15 — 19 | 70.11 | 35.53 | 53.54 | 43.95 | 15.23 | 30.96 |
| 20 — 24 | 93.19 | 40.16 | 64.52 | 81.23 | 18.21 | 52.05 |
| 25 — 29 | 96.66 | 47.12 | 71.43 | 96.37 | 17.33 | 59.94 |
| 30 — 39 | 96.80 | 51.02 | 74.79 | 98.04 | 23.60 | 64.52 |
| 40 — 49 | 95.73 | 48.49 | 72.09 | 96.08 | 28.93 | 66.54 |
| 50 — 59 | 91.51 | 40.88 | 67.19 | 87.63 | 28.35 | 60.40 |
| 60 & above | 62.86 | 17.07 | 39.78 | 55.84 | 11.70 | 33.21 |
| All Age-Groups | 53.01 | 26.76 | 40.15 | 51.28 | 13.40 | 33.58 |

Source : N. S. S. Report No. 173

The labour force participation rates in rural India are consistently higher than the corresponding rates in urban India in all age-groups (except the lowest) and that for females is much lower than that for males in both rural and urban areas. It may be noted that the over-all labour participation rates here agree quite closely with the 1961 Census rates (refer table 2(a).

**Labour Participation Rates by Educational Standards:**

4.9 Table 10 shows the labour force participation rates by educational standards. There is a gradual increase in the level of employment with increase in education, both in rural and urban areas, for all persons and among males—but not for females. The rates for females are much lower than those for males in all standards. The proportion employed is highest among graduates for men (which explains the increasing rush for admissions to colleges) and among secondary graders for women. Among women the labour participation rate is higher among illiterates than for literates upto middle school level.

TABLE 10

**Labour Force Participation Rates by Educational Standards (1964–65)**

| Educational Standard | RURAL | | | URBAN | | |
|---|---|---|---|---|---|---|
| | *Male* | *Female* | *Persons* | *Male* | *Female* | *Persons* |
| Illiterate | 50.75 | 27.97 | 38.16 | 38.71 | 15.33 | 25.21 |
| Literate below primary | 56.86 | 14.61 | 44.99 | 52.08 | 9.19 | 34.56 |
| Primary | 58.95 | 17.99 | 49.77 | 61.26 | 7.47 | 40.70 |
| Middle | 56.16 | 16.82 | 49.53 | 55.89 | 9.90 | 40.58 |
| Secondary | 75.50 | 48.87 | 72.28 | 73.41 | 21.84 | 61.83 |
| Graduate & above | 92.12 | 26.52 | 85.02 | 79.99 | 37.95 | 72.04 |
| All | 53.02 | 26.76 | 40.15 | 51.28 | 13.40 | 33.58 |

Source : N. S. S. Report No. 173.

**Poverty and Unemployment:**

4.10 Table 11 shows (a) the percentage distribution and (b) the cumulative percentages of working persons in different per capita monthly expenditure classes in rural and urban areas for all-India, as well as (c) the percentage of workers to the total number of people in each of these classes.

TABLE 11

**Data on % Working Persons and Labour Participation Rates in Different Percapita Monthly Expenditure Classes, 1964-65 — All-India.**

| Per capita monthly expenditure class | % of employed (a) | cumulative % of employed (b) | labour participation rate % (c) | (a) | (b) | (c)+ |
|---|---|---|---|---|---|---|
| 0 — 8 | 2.57 | 2.57 | 67 | 0.46 | 0.46 | 20 |
| 8 — 11 | 5.28 | 7.85 | 42 | 2.85 | 3.31 | 41 |
| 11 — 13 | 6.78 | 14.63 | 47 | 3.32 | 6.63 | 37 |
| 13 — 15 | 8.03 | 22.66 | 45 | 4.95 | 11.58 | 34 |
| 15 — 18 | 12.84 | 35.50 | 43 | 9.50 | 21.08 | 34 |
| 18 — 21 | 12.94 | 48.44 | 41 | 7.69 | 28.77 | 26 |
| 21 — 24 | 11.25 | 59.69 | 39 | 10.26 | 39.03 | 35 |
| 24 — 28 | 11.40 | 71.09 | 39 | 10.45 | 49.48 | 30 |
| 28 — 34 | 10.58 | 81.67 | 35 | 11.36 | 60.84 | 28 |
| 34 — 43 | 9.27 | 90.94 | 39 | 12.62 | 73.46 | 37 |
| 43 — 55 | 4.32 | 95.26 | 33 | 9.55 | 83.01 | 34 |
| 55 — 75 | 2.73 | 97.99 | 35 | 8.39 | 91.40 | 37 |
| 75 & above | 2.01 | 100.00 | 41 | 8.60 | 100.00 | 41 |
| All Class | 100.00 | — | 40.15 | 100.00 | — | 33.58 |

Source : Based on data in N. S. S. reports 173 and 192 (Tables with Notes on Consumer Expenditure, 19th Round, July 1964 — June 1965).

Nearly 60 per cent of the rural employed d 40 per cent of the urban employed longed to households whose monthly per ›ita expenditure was less than Rs. 24/- mated by dividing the proportion of kers in each class by the proportion of number of persons in each class and multiplying the product by the over-all labour participation rate

$$\left(\frac{Wi}{Ni} = \frac{Wi}{W} \times \frac{N}{Ni} \times \frac{W}{N}\right)$$

It clearly shows the extent of under-employment and the poor wages earned by poorest people in rural areas. The labour participation rate is highest (67%) in the lowest per capita expenditure class (Rs. 0-8) and decreases gradually as the level of living rises. Thus even with 67 per cent of the population employed in that class, the people belonging to it can do no better than spend the pitifully low sum of less than Rs. 8/- per capita per month on consumer expenditure. On the other hand in the urban areas the poorest class have a low labour participation rate (29%) which indicates the open unemployment in urban areas among the poor. Further studies of the relationship between poverty and employment on these lines using available data would throw more light on the problem.

**5. Conclusion :**

5.1 The analysis from paragraph 4.7 onwards had to be based on data that are out-of-date (1964-66) and refer to all-India because more recent data and at the State level are not available in published sources. These studies in section 4 apparently not attempted before, did throw up interesting patterns of employment and unemployment. Data for the State sample of the National Sample Survey for recent years, if made available by the State Statistical Department which collects, and tabulates these data, would help in analysing the employment-unemployment situation in Tamil Nadu on these lines. The expected publication of detailed 1971 Census data will also help considerably in such analysis. Costly surveys undertaken to specially to collect data on these aspects may therefore not be necessary. Areas that, on analysis of these data, merit further investigation will have to be studied by collecting primary data in specially conducted surveys. One of the background papers of the task force on Human Resources is a project report prepared in April 1972 of a proposed study of the economics of unemployment in Chingleput District. There is no information on whether the survey was conducted. If it was, the data collected therein should be extremely useful for analysing the problem of unemployment in depth.

An editorial of the Times stated "There can be no perfect definition of unemployment.........Unemployment figures, in whatever guise they are presented, are bound to remain the most emotive of the major economic indicators and it is right that it should be so. High unemployment is a damning indictment of a Government's performance, whatever its other economic achievements may be. But the figures have a mundane function to perform as well, in helping to establish as comprehensive a picture as possible of the economic outlook."

It is hoped that this 'mundane function' of the data on employment and unemployment in which the Task Force on Human Resources is now involved will help the planners in adopting bold and effective measures to eradicate unemployment in the State before the situation worsens.

* * * * * *

## Summary of Discussion

In the discussion of the paper at the Seminar in the Seminar room at the Madras Institute of Development Studies on February 22nd under the chairmanship of Dr. Malcolm S. Adiseshiah, Director of the Institute, Mrs. Chinnappa began with a brief comment on the three main sources of the statistics used by her in the paper. These figures were not precise estimates but provided a rough and ready insight

into the distribution of employment and underemployment. A relevant point in this context was that a more precise definition of the term 'worker' in the 1971 Census made for apparently sharp variations in statistics, particularly in estimating the number of women workers both rural and urban. Another significant feature was the rise in the number of agricultural labourers. She further pointed out that there was no specific definition of what constituted 'unemployment'. The attempt in the paper was to present a sectorwise analysis of unemployment from the data available in the Census Reports, N.S.S. and Employment Market Information.

The first point raised was the increase in the agricultural labour force. The view was expressed that this could be due to the fact that in recent years the small cultivators had lost their lands and joined the ranks of landless agricultural labour. In distinguishing an agricultural labourer from a cultivator a useful criterion was the R.B.I. definition of an a agricultural labourer as one drawing 50 per cent of his income from agricultural labour and owning less than one acre of land. With reference to the estimation of disguised unemployment and underemployment in the agricultural sector an alternate method suggested was the estimated manpower needed to cultivate 10 acres of land – the work unit assumed by Tarlok Singh in his study.

The emphasis in the paper on the collection of statistics met with criticism. It was felt that exhaustive statistics were not a pre-condition for identifying problems of unemployment, as these are well known features of our economy and relief programmes and remedial measures should not have to wait upon detailed investigation and processing of data. While the urgency of the human problem was admitted, it was pointed out that only a marginal fraction of manpower was employed for collection of data. The programmes for employment generation emanating from the Small Farmers Development Agency, the Marginal Farmers Development Agency, the Drought Prone Development Programme and the development of subsidiary occupations such as dairy farming, animal husbandry, poultry keeping etc. had to have a firm data base in terms of local resources and requirements for successful implementation. The collection of data and planning and execution of policies and projects are concurrent processes.

An opinion was expressed that there appeared to be more unemployment in urban areas while underemployment was a rural phenomenon. It looked as if we were following the western model towards bigger cities with social, economic and environmental problems peculiar to them. The answer to this situation seemed to be in an innovative approach which would make rural development economically viable and socially attractive. An interesting issue raised was that while there was a fall in unemployment and underemployment when drought affected areas were specially cared for, the picture in adjacent wet areas remained static.

It is a matter of grave concern that the figures for general unemployment as well as those for educated unemployed in Tamil Nadu are among the highest in the States of India. There is need for special impetus to the employment generation programme in this State.

The paper does not concern itself with any policy prescriptions or programmes to relieve disparities in the employment structure. There is, however, sound statistical analysis which is bound to be of considerable use in identification and evaluation. While some of the questions discussed did not arise directly from the paper as presented, there was no questioning the focus on the varied types of employment generating programmes which needed to be worked out.

# SMALL SHAREHOLDERS AND PLANNING

**Small Shareholders and the Economy**

The small shareholder in India holds a special place because of the nature of our capital market and our national planning goals of growth and social justice. The capital market, on the one hand, faces many constraints. It is small. It is still in the relatively early process of development. It is limited by low per capita income levels and low levels of capital formation and savings. It is handicapped by the traditions of the family firm and its hangover of self financing in the private sector units. It is not yet as serviced by a new class of financial managers who can develop financial traditions. And it shares in the handicapped self image of the private sector as the disadvantaged partner in our mixed economy and the social problems attached to free enterprise. It is not surprising then that the average amount raised during the last five years by the capital market was about Rs. 60 crores per annum as against the Rs, 3,000 crores per year that the private sector is expected to raise, including Rs. 1,000 crores annually for the corporate sector, during the Fifth Plan, Even so, 1972 was relatively a good year for the capital market. The shareholders response was considerably better, subscribing Rs. 93.8 crores for private joint stock company shares which is more than double that of 1971 (at Rs. 37.5 crores), including a two fold increase in ordinary and preference shares to Rs. 46.5 crores and an eight fold increase ln debentures at Rs. 30 crores compared to the previous year.

But we have a long way to go in raising substantial resources through the capital market. Our national goals of growth with social justice mean increasing the levels of savings in the household sector and by the small shareholder as one means of modifying the social distribution of capital holdings for the benefit of all groups and categories of savers. Measured by this criterion of the number of individuals participating in the savings process, the Indian situation with 2 million small shareholders is a good start but no more than a good start. The United States with its wide ranging legislative and fiscal measures which include the treatment of consumer durables as capital investment has the largest number of small shareholders of any country. So too in OECD countries small shareholders and household savings account for a major share of equities. The small shareholder in India must be encouraged in his own interest to invest increasingly in equity capital.

Equity capital being risk capital is entitled to a high return in a sensitively graded structure of interest rates. It has the added advantage of offering prospects of capital appreciation over time. In addition it has high liquidity potential and is a permanent asset in relation to time bound bonds, debentures and fixed interest instruments. The savings and investment action of small shareholders and households will be a direct function of the extent to which these features are preserved and developed in our equities. For the economy the total savings is a crucial parameter. It is composed of economic and financial savings. Economic saving is not only the new name for the familiar concept of capital formation, it also

* Extracts from a paper submitted by Dr. Malcolm S. Adiseshiah to the All India Conference on Protection of Small Shareholders organised by the Madras Shareholders' Association on Saturday, 10 February 1973 at Madras.

measures the efficacy of the transformation of financial saving into real capital. Financial saving is the tool, capital formation is the product—the former finances the latter. The rate and volume of savings for the economy in the Fifth Plan which has to reach 17 per cent of the national income can be increased through :

- The increased propensity of the householder and small shareholder to save, which means a cut only in all forms of conspicuous consumption but even the marginal propensity to consume
- an increase in the share of the small shareholder in the economy (which is now around 25 per cent) in relation to the savings of the corporate and public sectors
- the raising of saving levels in the public sector which is now near zero, generating sizeable surpluses by State undertakings which is still a far cry, and cutting back on non-developmental expenditures
- an increase in taxation which is already marginally at its maximum.

Against these general considerations, I wish to advance five suggestions to expand, strengthen, safeguard and legitimise the role of the small shareholder.

**A Survey:**

First I suggest a non-official survey of the capital market—including that portion of it that lies outside the pale of State regulation and rediscounting. The tertiary markets are risky and expensive but it is here that non-plan priorities are identified and their financial soundness tested. The State should take more notice of it not for control, but at least as a sounding post. It is here that investors can play a vital role through a proper assessment of the soundness of issues, help industrial growth outside plan priorities and generally encourage the small shareholder who has few other sources of income. Such a survey can lead to considerable modification of economic policy, such as legislative measures to promote the flow of household savings to the capital market. Concurrently, it can suggest prospects of and limits to financing of public expenditure (even non-developmental) by the less inflationary, more classical, method of public borrowing. In order more widely to disperse the disposal of savings originating in the unspent margin, it can also be used to an extent to discourage internal financing of development from retained profits by individual firms. This procedure has of course the added national advantage of giving the promoters another chance to check the soundness of the proposed issue in the eyes of the discerning investing public (for self-financing represents a vital bypassing of the assessment mechanism of the market) and determining, from time to time, the optionum duration (whether medium or long-term) of non-permanent assets. The extension of official pension funds and the acquisition of equities with these funds are other possibilities. The survey could go further. In France's Fifth Plan, models were employed both for the purpose of financial forecasting (this accepts the guidance of interest rates as determined by the market mechanism, both present and future, in determining capital priority needs. To a capital-user, interest rates are the same as price to the consumer) and for the formulation of short and medium term financial policies.

**A Dialogue:**

Second, the Shareholders' Association should endeavour to bridge the communications gap in the dialogue between the Government and the Stock Exchange authorities. There is much prejudice

against dealing in shares and there is the belief that violent fluctuations in prices of securities are inimical to the Country's interests and to that of manufacturing industry. Much of the prejudice is founded on genuine experience. The memory of inflation which wiped out personal savings and fortunes in Europe because of the steep decline in the value of money and the currency reforms that had to come in its wake is still deeply etched in the minds of people. In India, rampant speculation in commodities which enter into the everyday budget of common people has similar anti-social overtones. And it was that, when returns far exceed the compensation necessary for the holding of these goods by middlemen in the process of distribution. But today, in the context of controlled and assured supply of essential commodities at fair prices and the procurement operations of the State Governments and the Food Corporation of India, such activity has been contained. In financing industries, there is a whole range of resources which lie outside the attention and interest of the Government. Apart from plan and core industries and social project, the mobilisation of resources depends on the estimated difference between future rates of interest and yields from individual projects. Risk bearing is an essential operation which assures a certain measure of freedom from the effects of inflation and where a Government is content to watch and wait to control, these operations can lead not to unearned incomes but genuine earnings that can serve to reduce the burden on the unemployed work force. Much more intelligence is called for in the estimation of the growth of new issues and their likely yields over a period of time of a given scrip in relation to competitive ventures.

There is a tradition of secrecy concerning the operation of private projects in India. Competitors in industry are always less willing to part with information than Government is about its own plan. Within the framework of this prudential reticense about a given firm, the Shareholders Association can do much to promote a better understanding of the stock exchange, security holdings and analyse and make known the production trends and productivity prospects of the firms. To begin with, it can, for instance, press for the release of the late Dr. Anjaria's report on Forward Trading (if this has not already happened) and serve to increase the liquidity and security afforded by industrial issues. In the context of block holdings by LIC, Unit Trust, ICICI, FCI, IDBI and the State Financial Corporations, the Shareholders would do well to organise themselves into a corporate entity with an all India stature in such bodies as trust funds, mutual funds or information-clearance associations, which would also be a means of imparting a sense of larger purpose and national unity in our political life, since government activity quite rightly has as a rule tended to promote zonal or local consciousness and the distinctiveness of State claims. The extinction and abolition of the Managing Agency sysem has left a gap. The professional manager cannot yet replace the Managing Agency who commanded ready sources of credit from friends, relatives and ethnic cohorts, who kept up a high rate of inter-industry consumption through his Managing Agency contracts, and who inspired a great deal of confidence both in investors and bank managers. Bank credit, which is needed for the priority sectors, is frowned upon and is by law unavilable in most countries beyond a 3, 5 or 7 year period. The Association would do well to argue for a juster debt-equity ratio in the company balance-sheet —both with the Government as well as

with prospective investors without a ready tradition of compay experience. The Association can initially provide a non-professional underwriting service in the interests of a wider holding of permanent financial assets. Issues are now over-subscribed. But they are not nearly enough. The small investor must be enabled to buy securities and the Association can have a voice in the rationing of scrips.

**Tax Relief:**

There is scope for a well represented Shareholders' Association making representations with the Union Government for a tax exemption not indeed on the income from shares held by individuals but on the initial investment made in these shares from other income. In this regard, the small savers who are content to accept fixed interests from savings mobilized under Government aegis enjoy a preference in the matter of tax exemption for the yields up to a stipulated initial amount which will not add on to their other taxable income. Share holding is looked upon in a restricted market such as ours as a supplemental source, such as poultry rearing is in a dry farming region. The tax exemption proposed will not only increase equity capital and place its holders on a par with holders of government bonds, it will also strengthen the social position of the small scale stock operator who by buying and selling, serves to stabilise rising and falling prices at stepped up levels in a foreign exchange market or a negotiable securities market. He brings to bear a specialised function such as intelligent and vigilant share holding. The tradition of the public accountability of the emergent manager in the silent, eloquent language of the stock exchange needs to be saved more than ever before.

**Legitimating the small holder:**

This logically brings us to the role of the public sector entrepreneurs who are still a nebulous unformed professional class. Large portfolio holders of premium or trust funds such as the LIC will certainly need to readjust their holdings from time to time. It is part of their legitimate activity, and official trust funds are managed in this fashion in their usual course of business by official agencies even in the USA. Of course while accepting the lead of the share market price, they would need to space out their market operations so as not to become the principal agency in influencing it. Secondly, an awareness of the rate of interest is lacking among those responsible for accounts and for what has been called "accounting prices". in the absence of a regular contribution to the general revenues by State owned industries, (these alone will be the measure of their surplus), public accountability will take the undesirable form of discussions in Parliament which, as the Committee of Parliament on Nationalised Industries in Britain has pointed out, acts as a psychological deterrent against efficiency. The large provident fund accounts of their own government servants which these officials dispose of, should be investible as risk capital. Even if it means the creation of new institutions, the public accountablity of officials in a regular manner stipulated by Parliament should be ensured by legislation. The provident funds of industrial workers are also a potential source of investible funds. If the Government does not accept direct responsibility for holding these in trusts, regulation by legislation of the activities of autonomous bodies would be essential. Institutions do not directly contribute to the share capital held by the individual investors but they will inject much needed life into the stock exchange and create a sizeable class of income earners who by

virtue of handicaps such as age, education or circumstance, can earn an honourable livelihood making for independence.

**A Policy**:

Another important factor that needs to be examined with the help of experts is the relation between the whole bundle of interest rates and price trends which constitute, either by default or are the pre-medidated effect of the Government's fiscal, monetary and financial policies, the key element for the small investor. The RBI's Bank Rate is not as influential as it can be and the rates of the Union and State Government's gilt edged do not bear any relation to the Bank Rate or to the differential interest rates for priority sectors recommended to the RBI by the Government. Even if that has not had an enthusiastic welcome in banking circles, this is the beginning of the entry of the unofficial security market into the banking system. As for a stable price policy the Government today has no alternative to devicing the necessary economic, production, distribution, monetary and fiscal measures that will help us turn away from the average 10 per cent price rise of the Fourth Plan to no more than a 3-4 per cent one for the Fifth. The most serious blow to the small shareholder is the past and current climate of escalating prices. Stability is one of our national goals which must be transformed into a set of policy instruments now and for the Fifth Plan. Out of all this will, I hope, emerge a policy which will promote the small shareholder's interests and expand his participation in the economy.

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